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Do not assume content reflects current scientific knowledge, policies, or practices.



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United States  
Department of  
Agriculture

Forest Service

Tongass  
National  
Forest

R10-MB-116



# Shelter Cove

## Draft Environmental Impact Statement

Alaska Region  
Ketchikan Area

Volume II: Maps





## Draft Environmental Impact Statement

# Shelter Cove

U.S.D.A. – Forest Service  
Alaska Region  
Alaska

Lead Agency: U.S.D.A. Forest Service  
Tongass National Forest  
Ketchikan Area  
Federal Building  
Ketchikan, Alaska 99901

Responsible Official: Forest Supervisor  
Ketchikan Area  
Tongass National Forest  
Federal Building  
Ketchikan, Alaska 99901

For Further Information  
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Ketchikan District Ranger  
3031 Tongass  
Ketchikan, Alaska 99901

Comments Must Be  
Received: Within 45 days of when Notice of Availability of the  
Draft Environmental Impact Statement is published in  
the Federal Register.



# Contents

NOTE: This document is to be used in conjunction with Volume 1 as a reference aid for referring to figures mentioned in the text.

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# Chapter 1 Maps



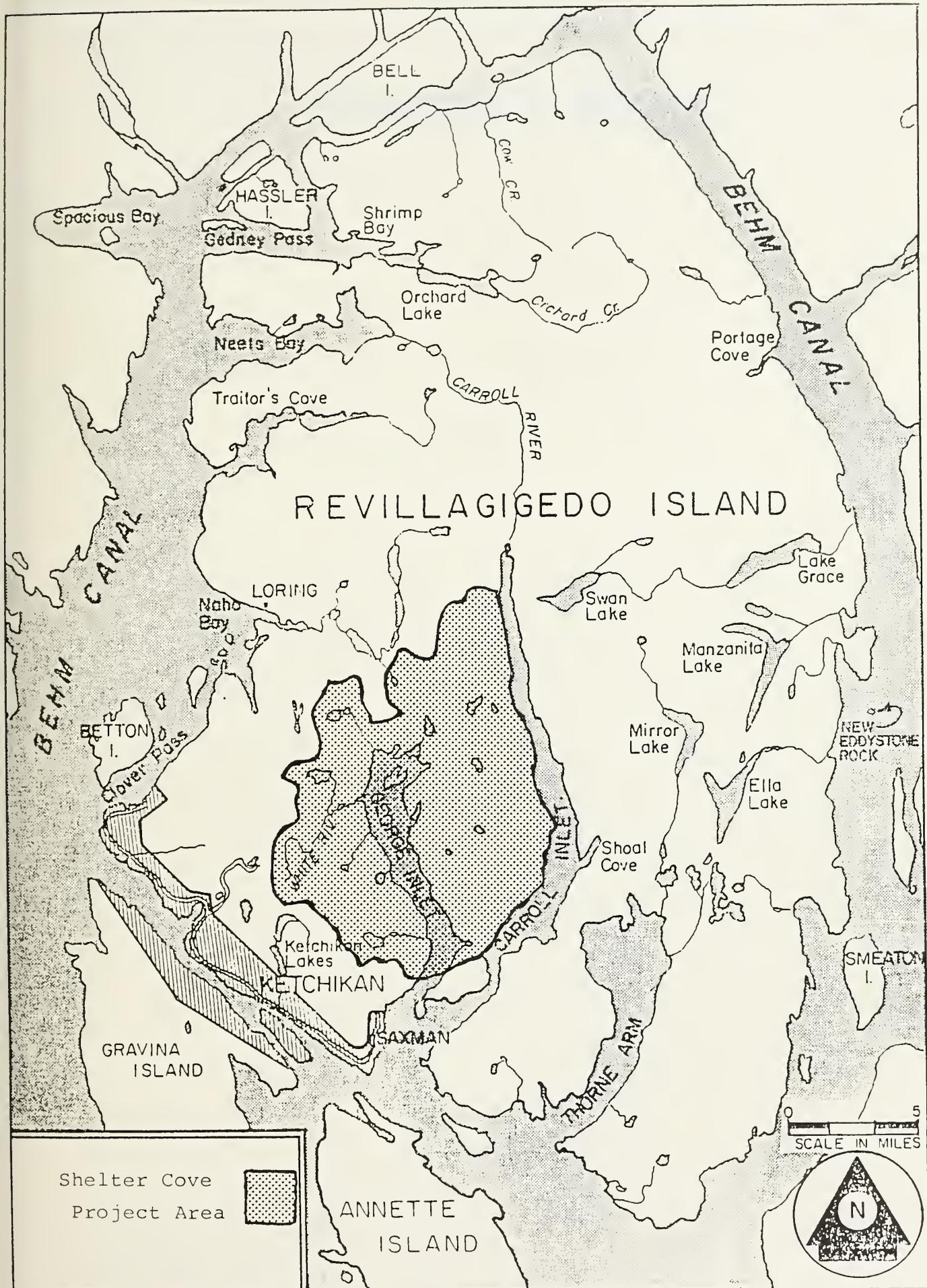


Figure 1-1



# Chapter 2 Maps



# ALTERNATIVE 2

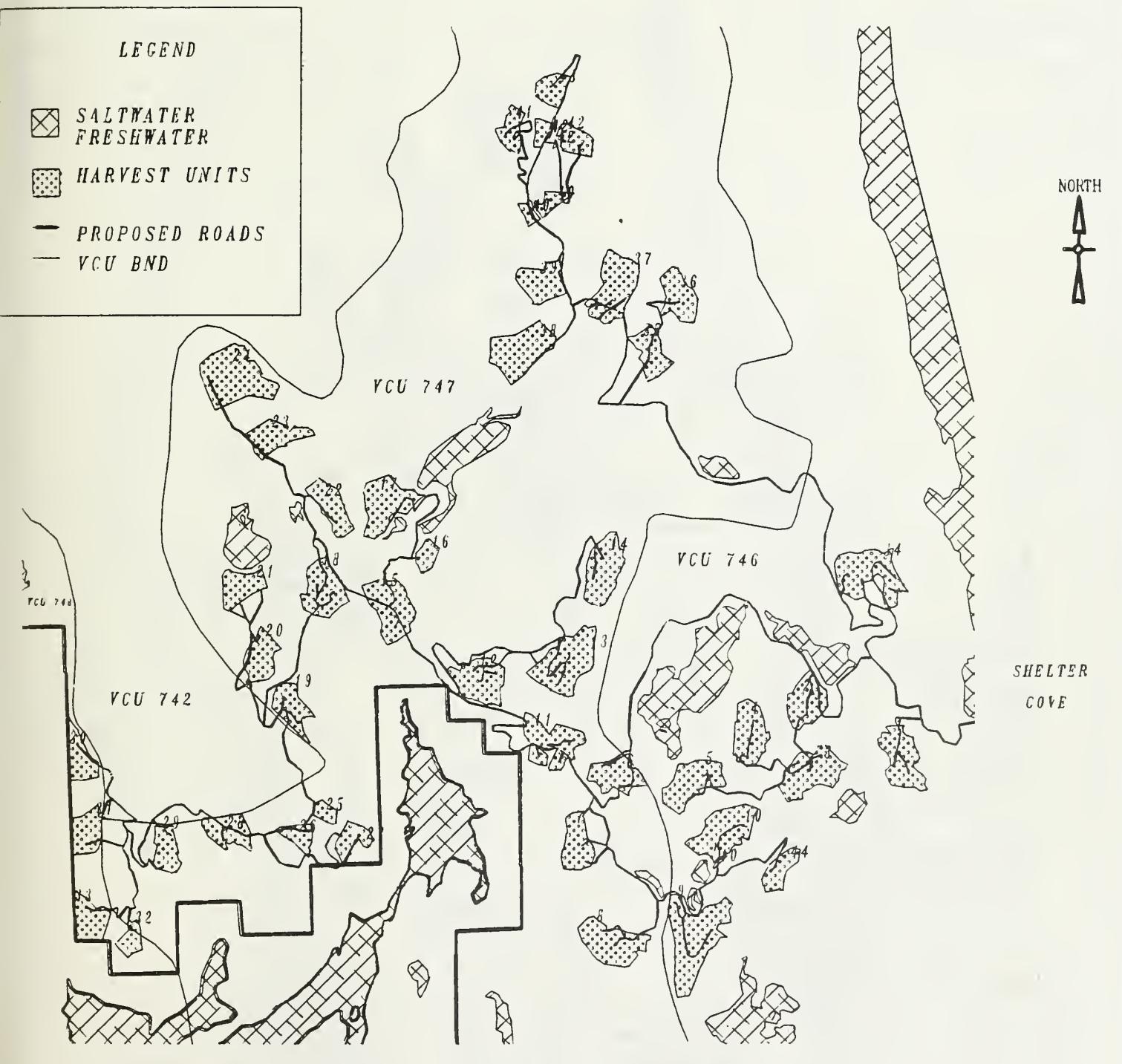


Figure 2-1

# ALTERNATIVE 3

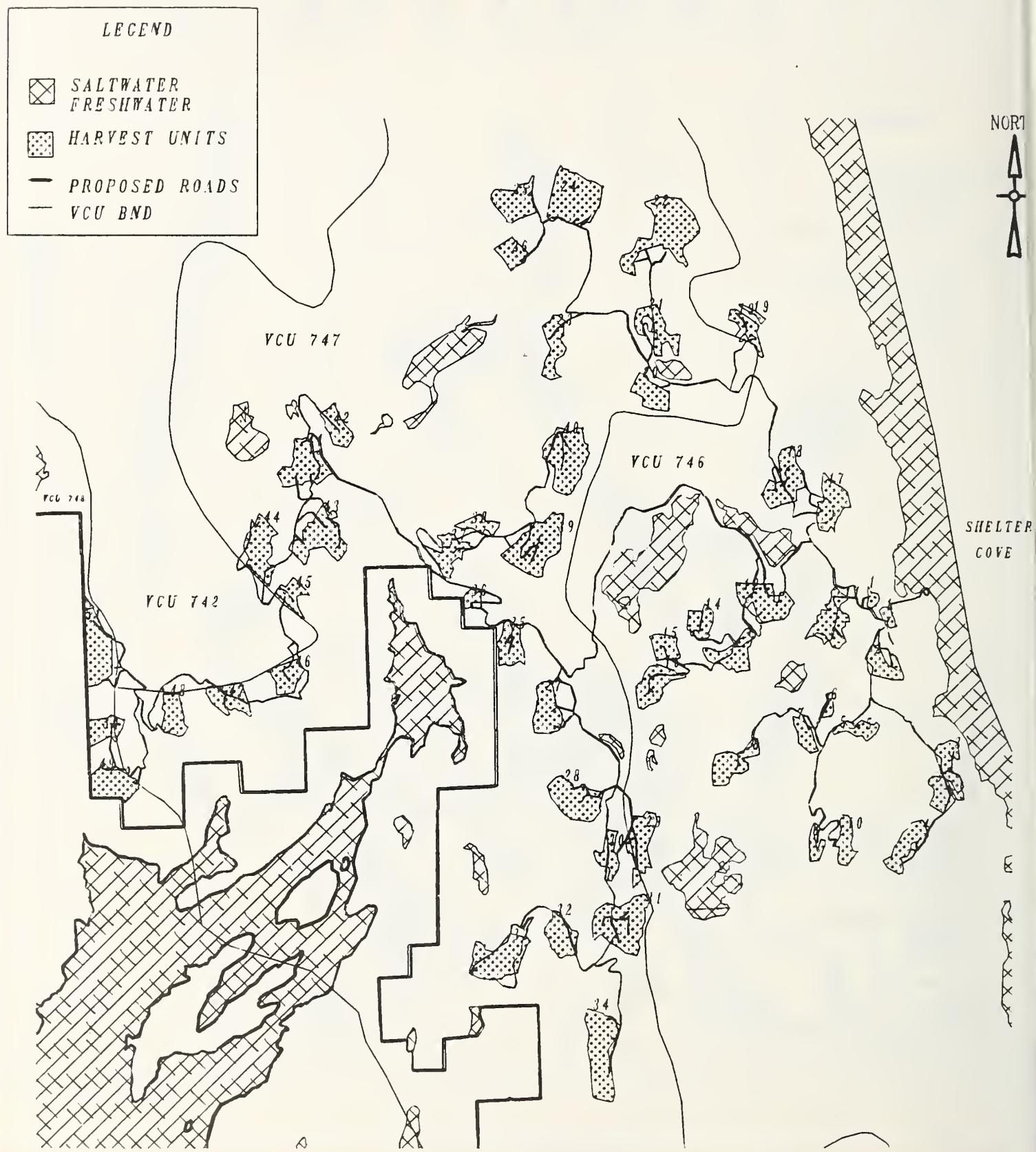


Figure 2-2

# ALTERNATIVE 4

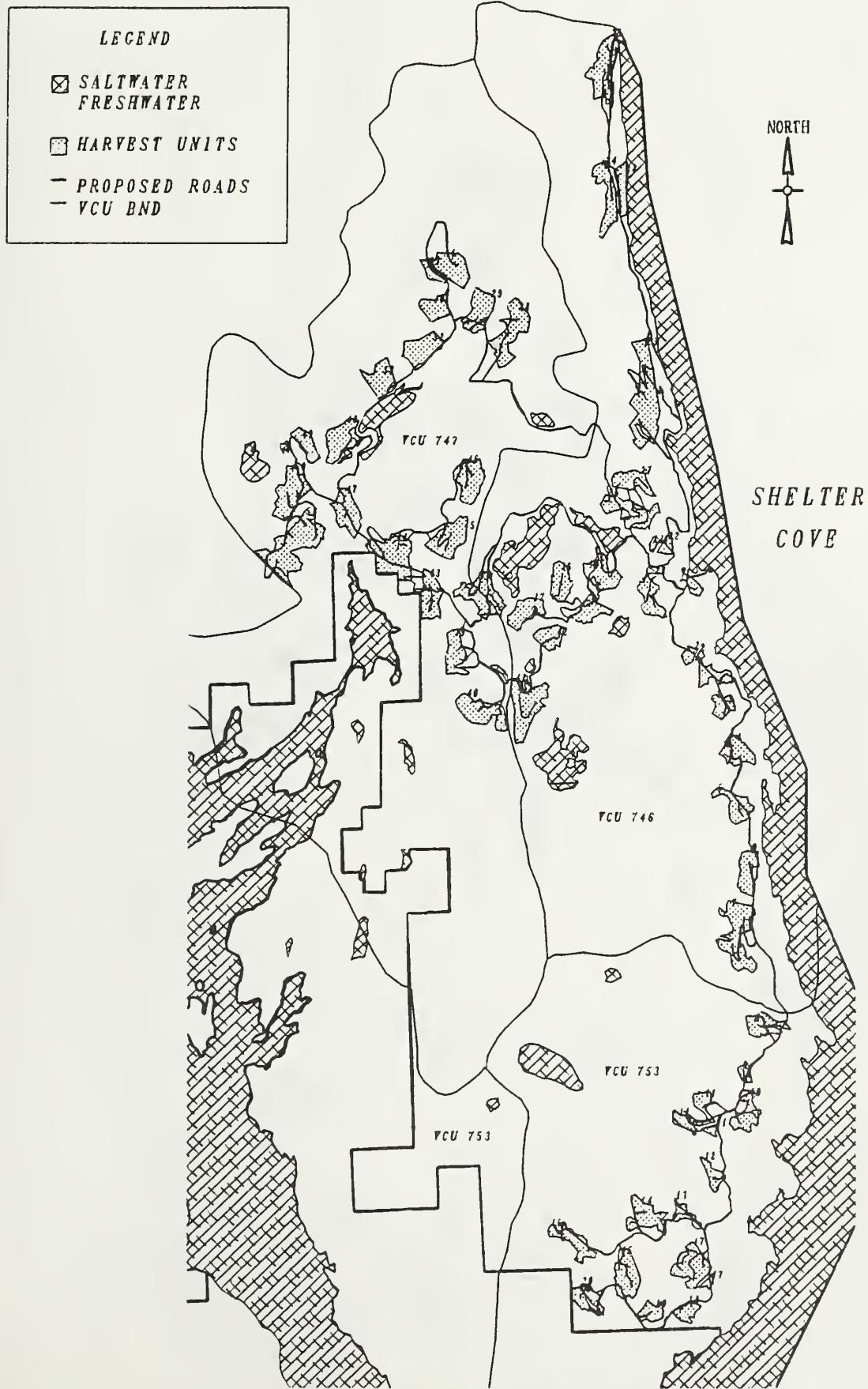


Figure 2-3

# ALTERNATIVE 5

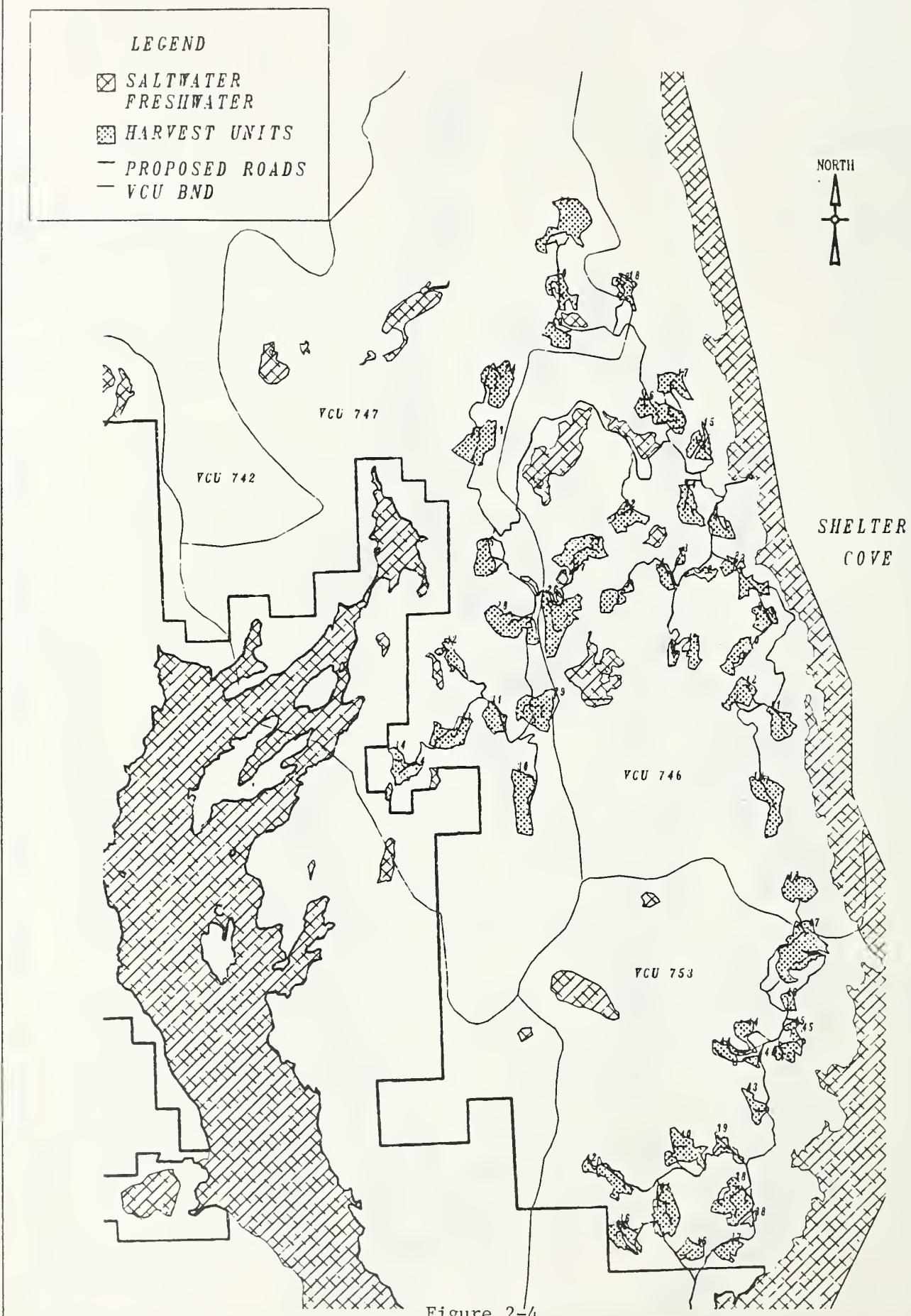


Figure 2-4

# ALTERNATIVE 6

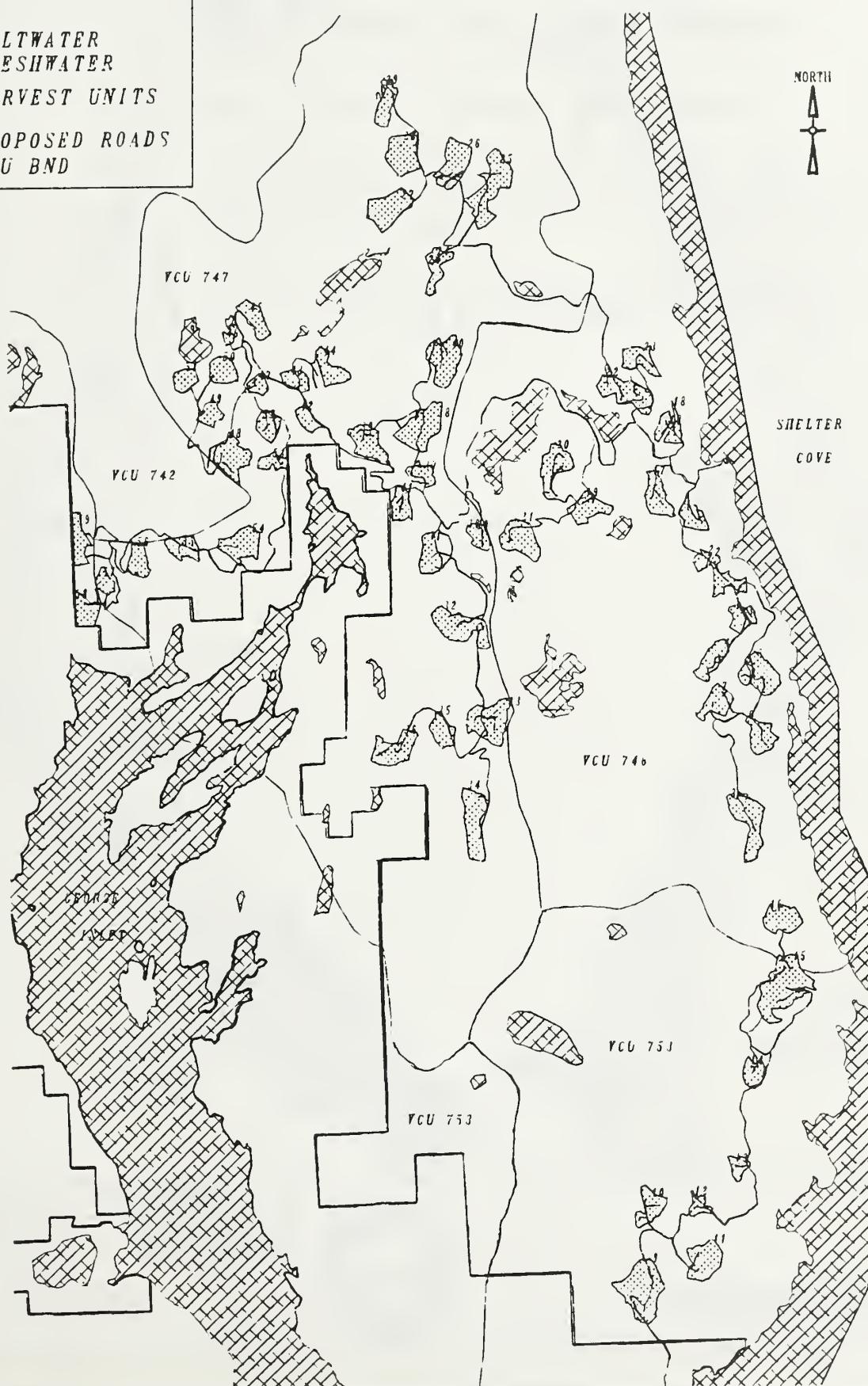
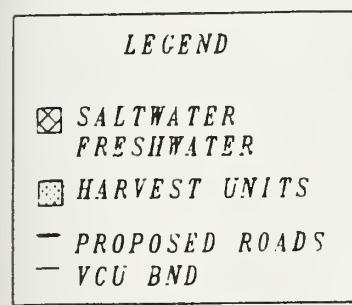


Figure 2-5

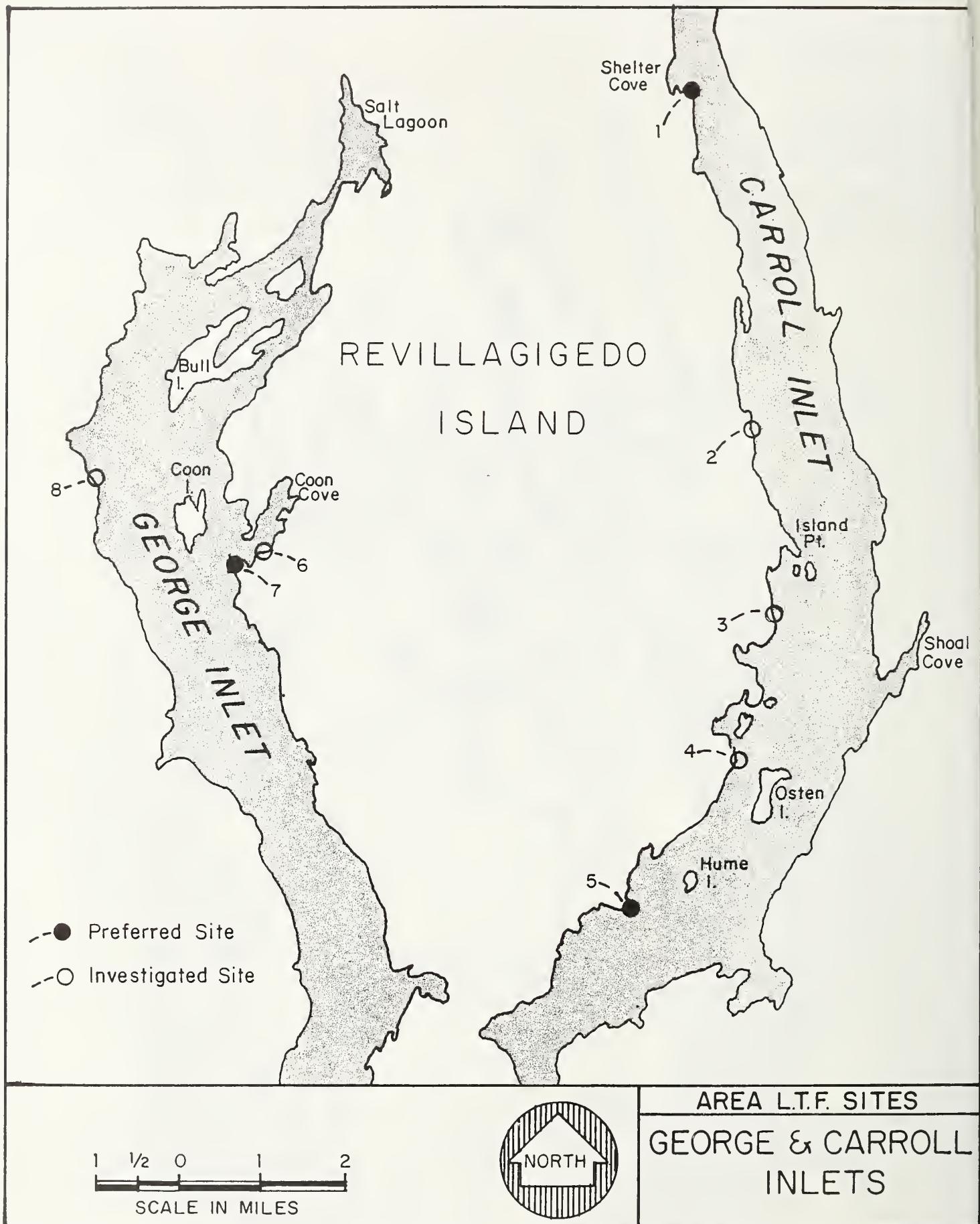


Figure 2-6

# **Log Transfer Facilities and Site Location Maps**

## **Log Transfer Sites Investigated**

The first map indicates all new sites that were considered. Those that were eliminated did not meet pertinent siting guidelines and are indicated on the maps as investigated sites. The preferred sites were investigated and are proposed for use in the various alternatives considered in this document.

The next two maps refer to the individual existing and proposed (non-existing) log transfer sites that are planned for use in the alternatives in this document.





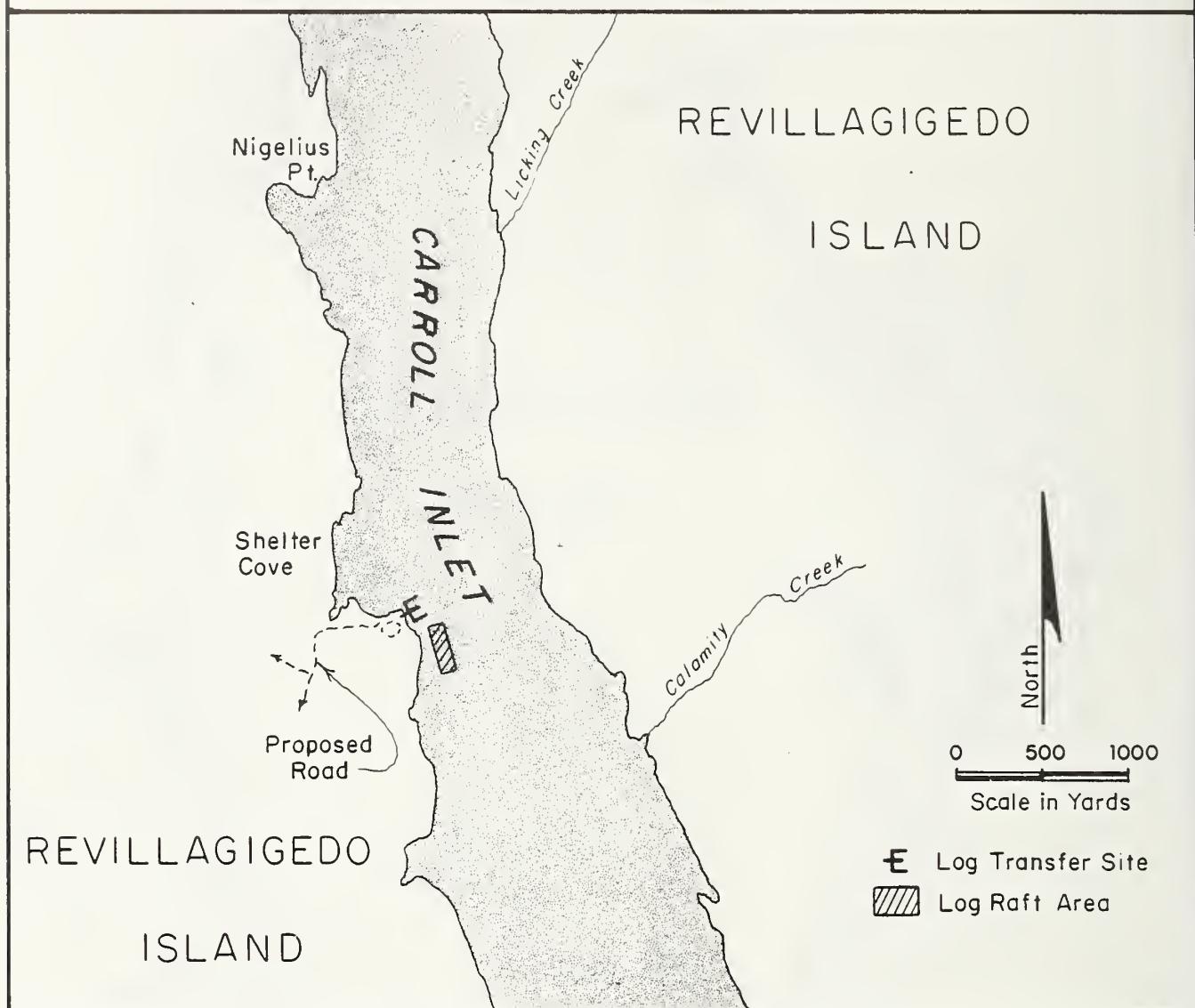
AREA L.T.F. SITES

GEORGE & CARROLL  
INLETS

1 1/2 0 1 2  
SCALE IN MILES



# SHELTER COVE PROPOSED L.T.F.



	ALTERNATIVE					
	1	2	3	4	5	6
Used		X	X	X	X	X
Reconstruction						
SYSTEM TYPE						
Double A-Frame		X	X	X	X	X
Slide						
Float-Off						

# HUME ISLAND EXISTING L.T.F.

REVILLAGIGEDO

ISLAND

Osten  
Island

Existing  
Private  
Road

Hume  
Island

North

0 500 1000  
Scale in Yards

Existing Log Transfer Site

Log Raft Area

GEORGE INLET

REVILLAGIGEDO  
ISLAND

Gnat Cove

## ALTERNATIVE

	1	2	3	4	5	6
--	---	---	---	---	---	---

Used

X X

Reconstruction

## SYSTEM TYPE

Double A-Frame				X	X
Slide					
Float-Off					



## **Preliminary Reconnaissance Reports**

These site diagrams relate to the Area L.T.F. Sites Map.

## **Site 1 — Shelter Cove**

### **Operations**

- The site appears to have adequate upland area.
- Favorable for A-frame system.
- Dry sort and storage is not available at the site. Dry sort and storage may possibly be located  $\frac{1}{4}$  to  $\frac{1}{2}$  mile from site.

### **Development**

- Rock borrow is adjacent to the site.
- Good beachhead adjacent to site for equipment mobilization.
- Site requires moderate fill and rock excavation.

### **Access**

- Access road would be about  $\frac{1}{2}$  to  $\frac{3}{4}$  mile long.
- Road will contain some minor segments with very steep grades.
- Site is adequate for a drive-through loop road.
- Approach to dump position is suitable.
- Access road will have a very heavy through-cut adjacent to the site. The cut will be about 100' long and 20-30' deep. This can serve as a rock source if it proves adequate.

### **Water Beach Conditions**

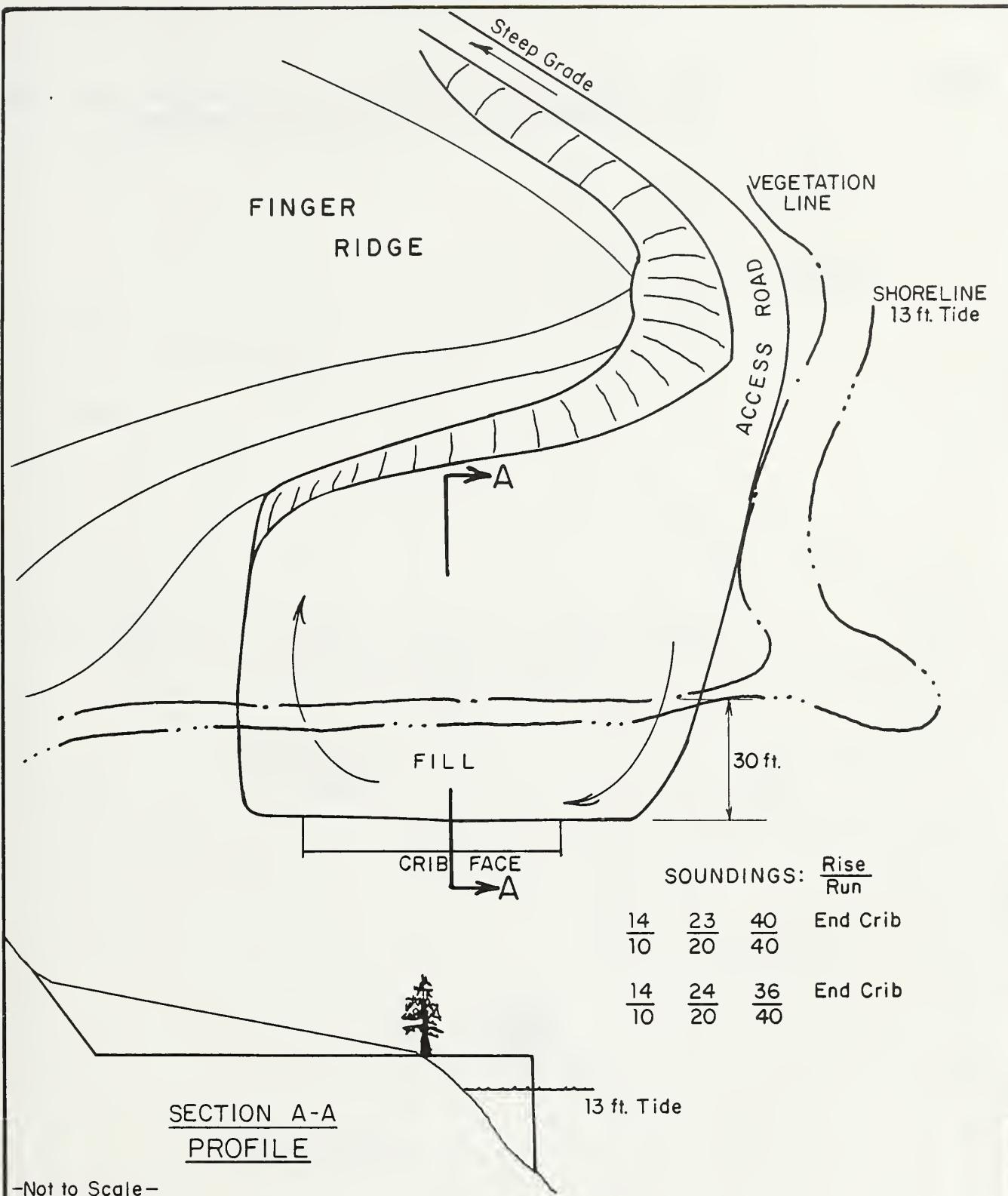
- The site has adequate water depth.
- According to the navigational charts, Carroll Inlet has very good depth.
- Ample raft and booming area is available at the site.

### **Environmental**

- The site appears to lie in a favorable area.
- Water depth indicates suitable flushing.
- Eagle Tree Atlas does not indicate the presence of any eagle trees.
- Site is protected from weather.

### **Recommendations**

- The site appears to be adequate and should be considered further. Marine, archaeological, and economic impacts should be evaluated in more detail. Additionally, the area should be surveyed for eagle trees.

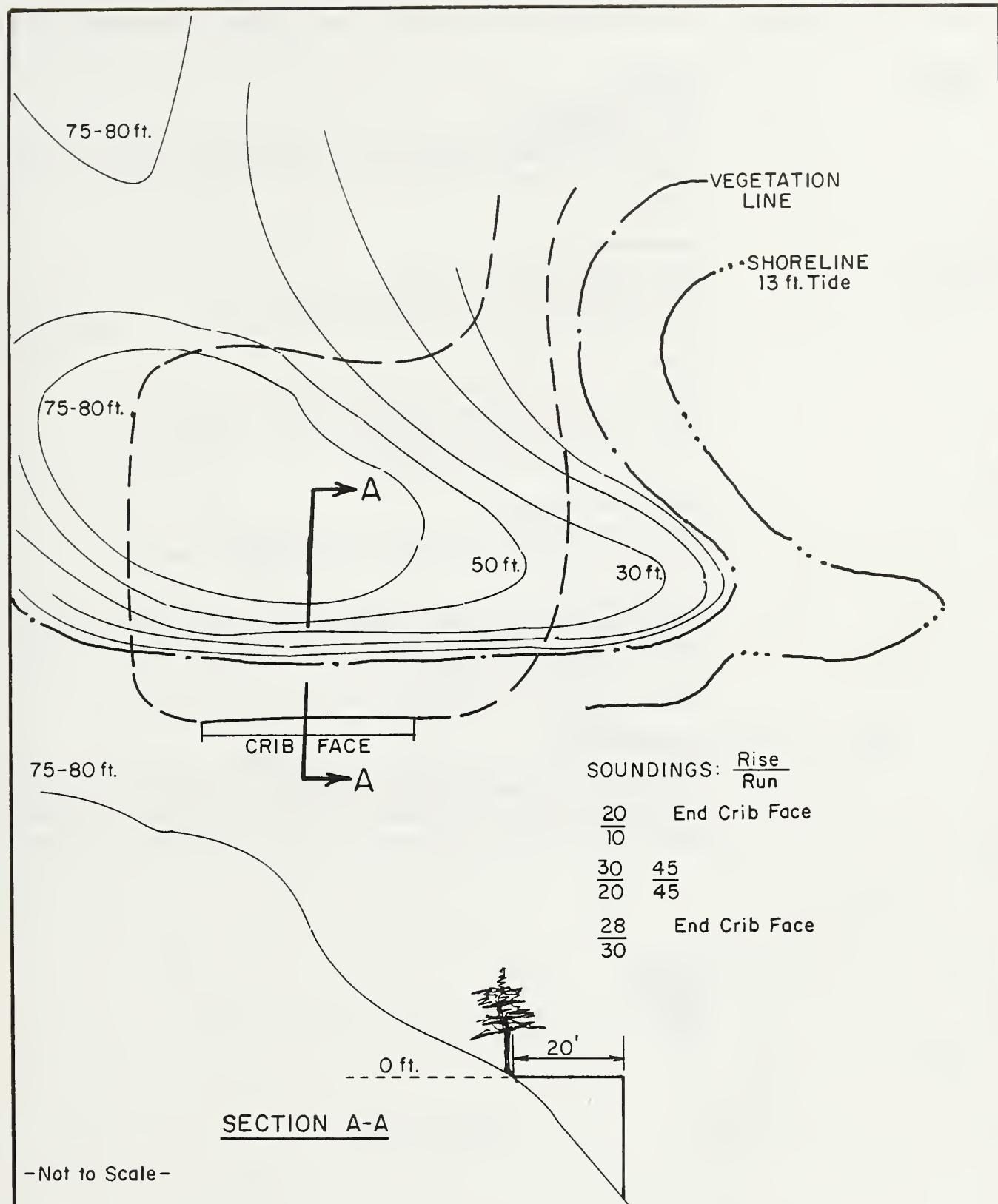


-Not to Scale-

SITE 1 - SHELTER COVE - WEST CARROLL

**Site 2**

Site 2 contained a 70-80' high ridge within the site. Development would be very difficult and expensive. This site was not given further consideration.



-Not to Scale-

SITE 2 - WEST CARROLL

## Site 3

### Operations

- Site is of adequate size.
- Favorable for A-frame.
- Dry sort and storage would have to be accomplished within  $\frac{1}{4}$  mile of the site. If done at the TTF, much rock excavation would be necessary to develop dry storage and sort.

### Development

- Rock source is adjacent to the site.
- Good beachhead near the site for equipment mobilization.
- Site requires moderate fill and much rock excavation.

### Access

- Access road would be about  $\frac{3}{4}$  to 1 mile long.
- Site access road would have moderate grades and alignment.
- Site is excellent for a loop drive-through system.
- Approach to dump position is excellent.

### Water Beach Conditions

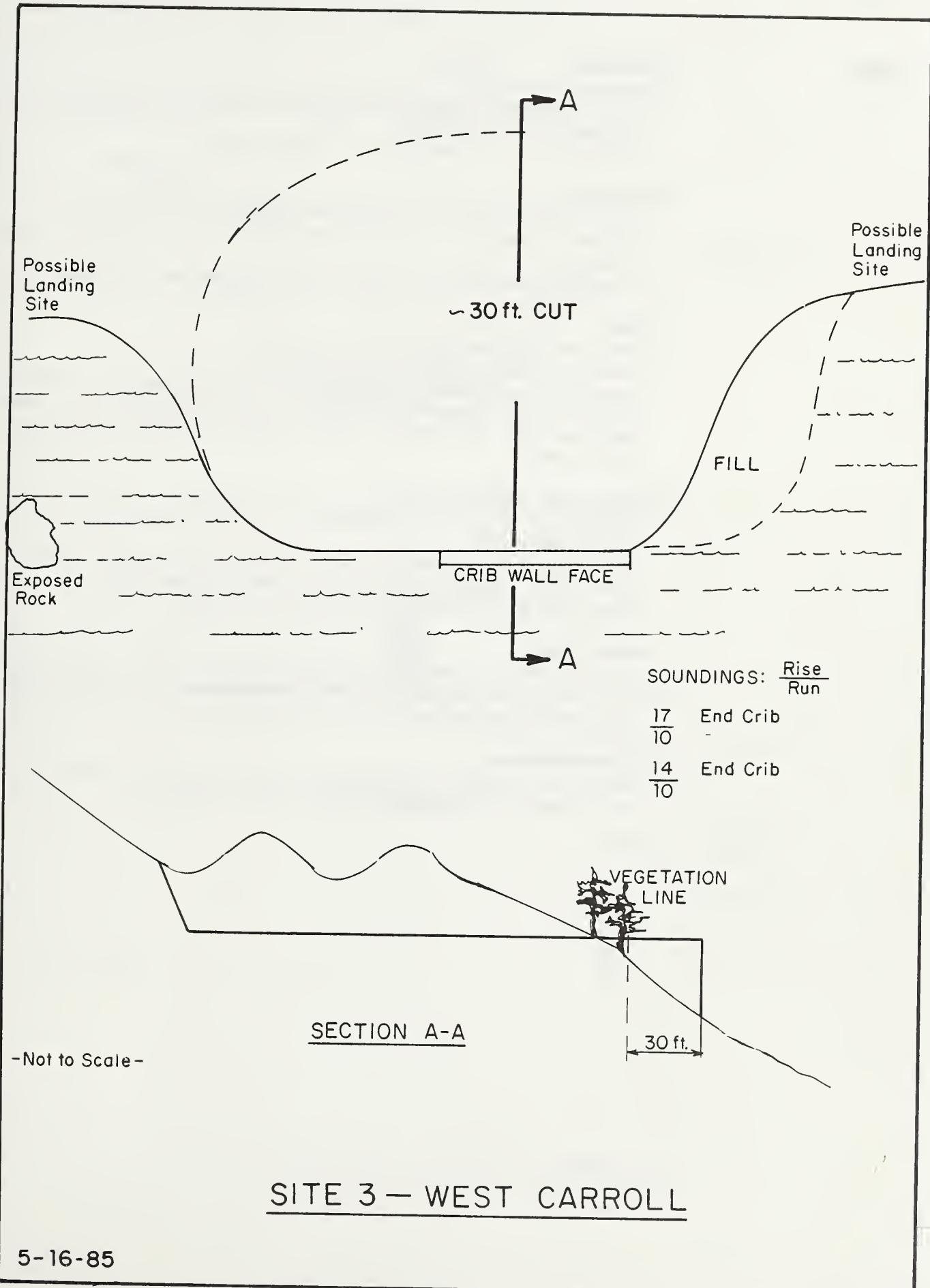
- Site has adequate water depths for A-frame operations.
- Ample water maneuvering room for raft and booming operations.

### Environmental

- Site is  $\frac{1}{4}$  to  $\frac{1}{2}$  mile from tideflat areas and about  $\frac{1}{2}$  mile from any significant streams.
- Site is protected from weather.
- Eagle tree atlas does not indicate any eagle trees present on site.

### Recommendations

- From an operational and development standpoint, this site appears to be superior to all other sites considered. If marine, archaeological, and economic impacts are favorable, this site should be considered further. The site should be investigated for eagle trees as the West Carroll shoreline appears to contain a number of them.



## Site 4

### Operations

- Site is of adequate size.
- Dry sort and storage cannot be accommodated at the site. This would have to be developed about  $\frac{1}{4}$  mile inland.
- A-frame or chain slide would be best suited to this site.

### Development

- Site will require a fill 70-75' out from the vegetation line on the beach.
- Rock source is unknown. The fill adjacent to the site had no exposed rock to verify a source.
- Site has good beachhead at north edge of site for equipment mobilization.

### Access

- Site access would have moderate grades near the site.
- Access road would be about 1 to  $1\frac{1}{4}$  mile long.
- Large fill will accommodate drive-through loop. Excavated area can also provide part of the loop. Chain slide system would require heavy excavation for ingress and egress because the slide would not require a large fill, thus moving operations back into the uplands.

### Water Beach Conditions

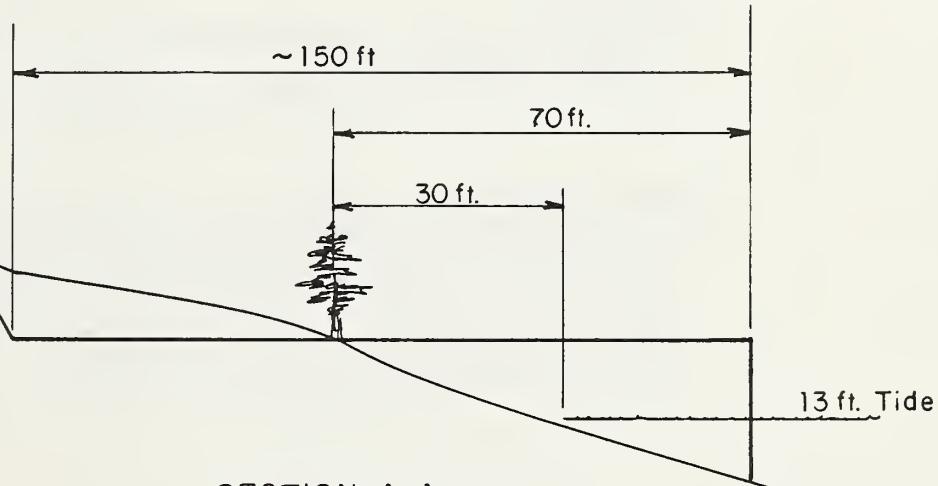
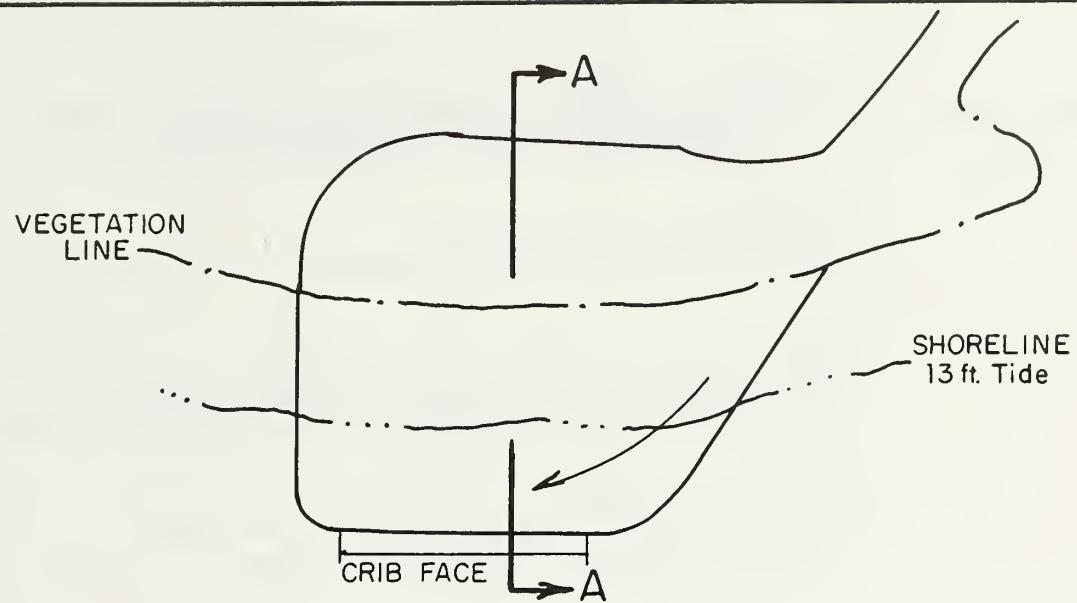
- The site would require the TTF face to be 70-75' from the vegetative line to reach sufficient water depth.
- Tidal action at the site appears to create a fast current. Log rafting would be located directly south of the site at an area with 40' of water depth.
- Ample water area to handle logs for rafting and booming.

### Environmental

- The site is about  $\frac{1}{4}$  mile from a tideflat area lying to the north. The navigational charts show that the channel has a deep pocket between Osten Island and the site. This may trap bark and prevent it from dispersing further out into Carroll Inlet.

### Recommendations

- This site is an adequate site; however, the fill will be large. The site will require review from marine, archaeological, and economic standpoints.



SECTION A-A

SOUNDINGS:  $\frac{\text{Rise}}{\text{Run}}$

$\frac{13}{20}$  End Crib Face

$\frac{15}{20}$  End Crib Face

- Not to Scale -

SITE 4 – WEST CARROLL

**Site 5 —  
Salmonberry Site  
Cape Fox, Inc.**

**Operations**

- The site is suitable for A-frame, chain slide, crane or derrick systems.
- Dry sort and storage area appears to be developable adjacent to the site.

**Development**

- Rock source availability is unknown.
- Site requires a large fill to reach water depth for all tidal operations.

**Access**

- Terrain appears to be flat to moderate, providing minimal roading problems.
- Good beachhead landing at the site for equipment mobilization.
- This site is on private land requiring rental, share cost, or other agreement.

**Water Beach Conditions**

- Full depth water is about 70–80' seaward from the vegetation line.
- Ample maneuvering room for rafting and booming.
- Area is protected from weather.

**Environmental**

- According to the Forest Service Eagle Atlas, two or three eagle trees are present at or adjacent to the site.
- The site is within  $\frac{1}{4}$  mile of shallow tideflat beaches to the north and west of the site.

**Recommendations**

- An economic analysis should be conducted to determine share cost, lease, rental haul, and construction costs that would be applied to government use of the site. Additionally, the site should be investigated for archaeological and marine impact.

Impacts must be evaluated to determine if it will be necessary to dispose of any eagle trees. Eagle trees are protected under Federal law.

# **Chapter 3 Maps**



# INVENTORIED VISUAL QUALITY OBJECTIVES

MAXIMUM MODIFICATION

MODIFICATION

PARTIAL RETENTION

RETENTION



Scale 1 MILE

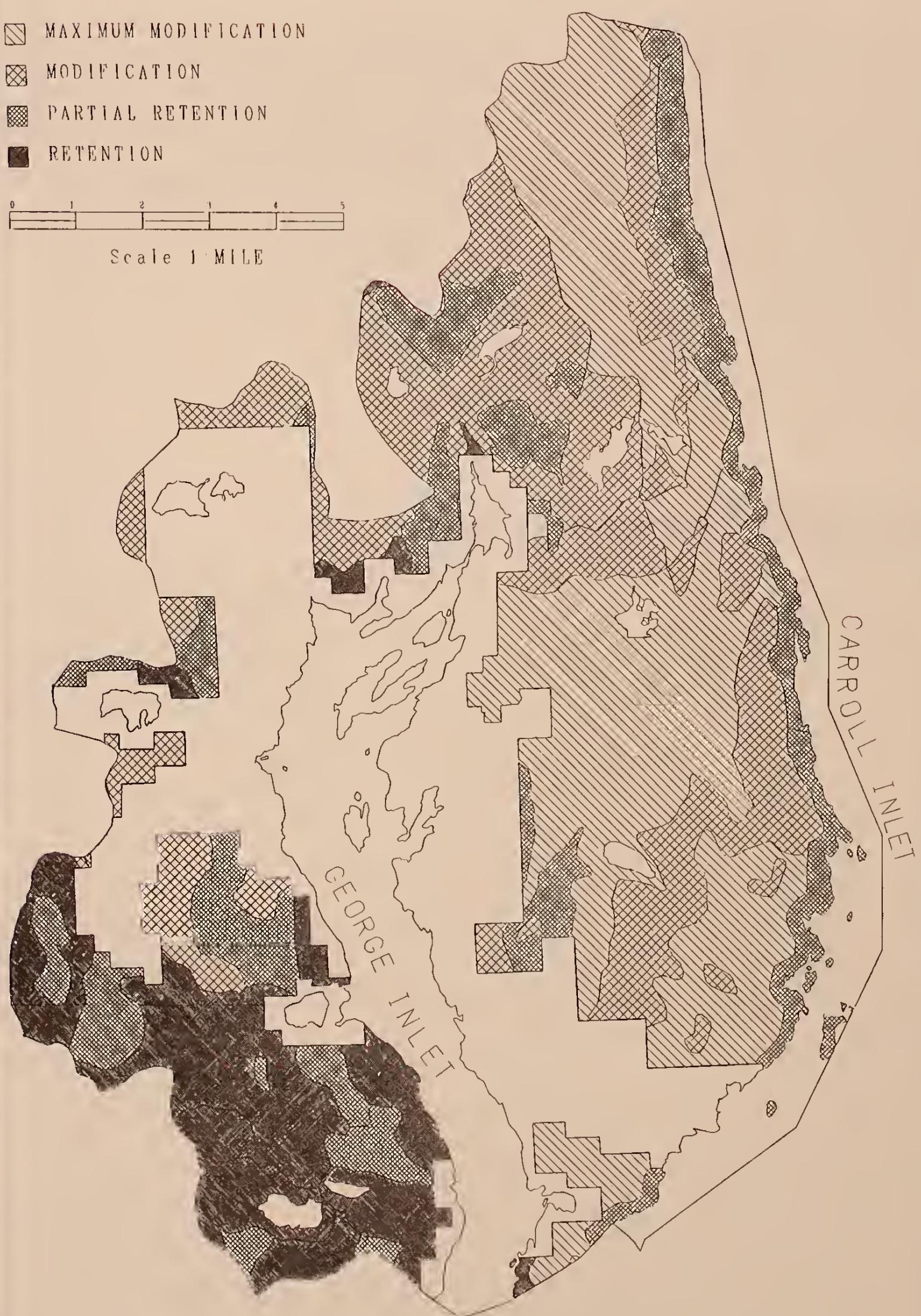


Figure 3-1



INVENTORIED  
QUALITY OBJECTIVES  
POTENTIAL VIEWS  
INCLUDING INCLOUDING



Figure 3-2



# INVENTORIED VISUAL QUALITY OBJECTIVES INCLUDING POTENTIAL VIEWSHEDS

MAXIMUM MODIFICATION

MODIFICATION

PARTIAL RETENTION

RETENTION



Scale 1: MILE

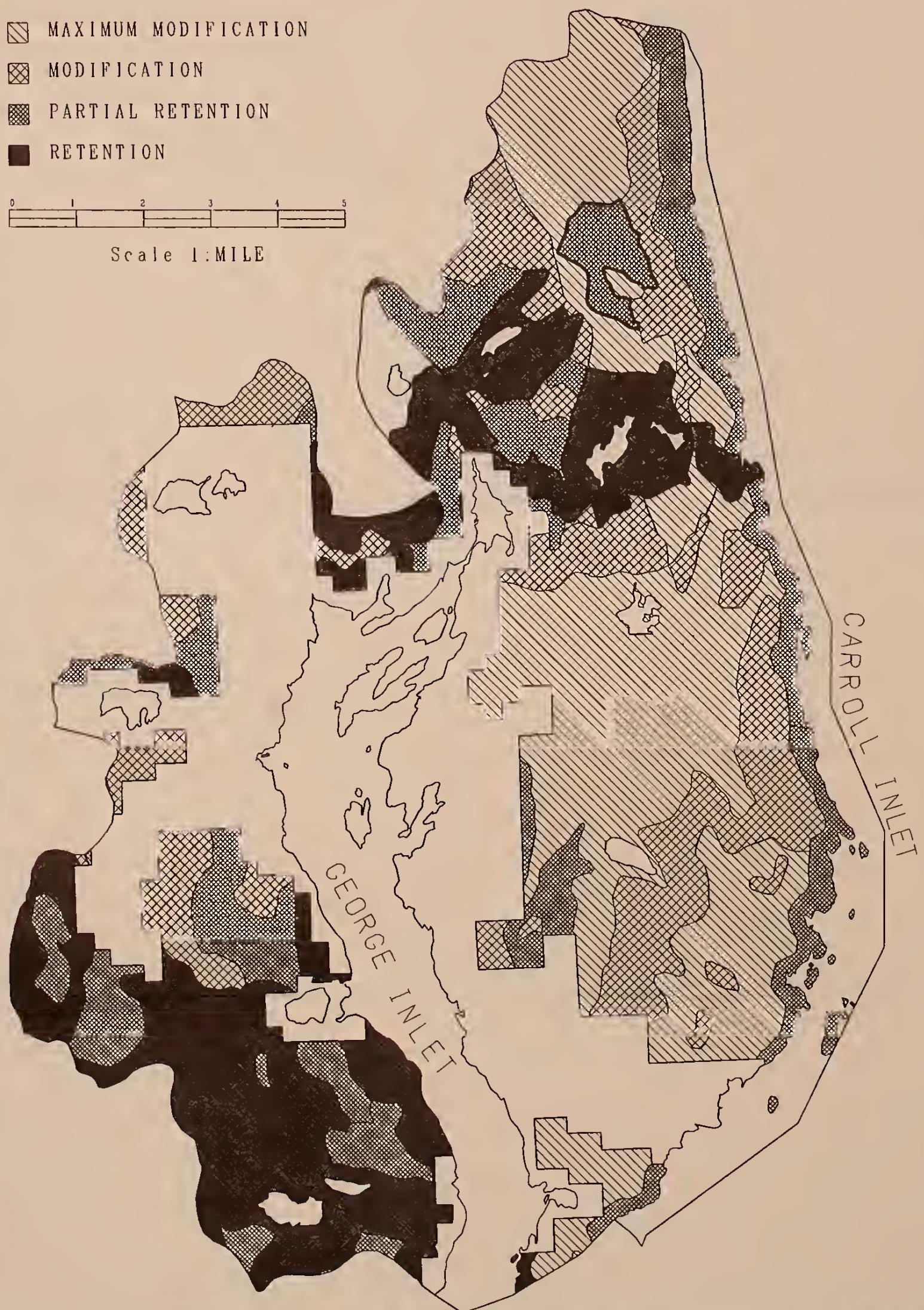


Figure 3-2

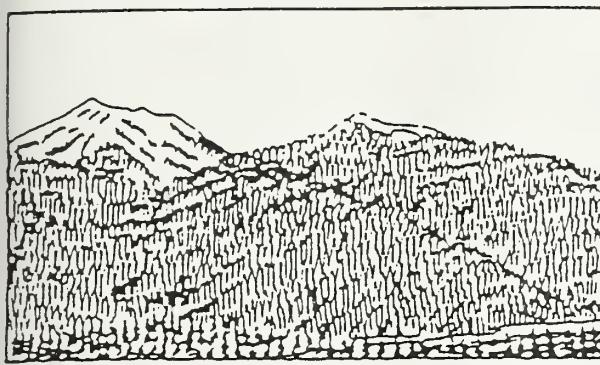


## Relationship Between Visual Quality Objectives and Visual Condition

### VQO Preservation

#### VC I Natural Condition

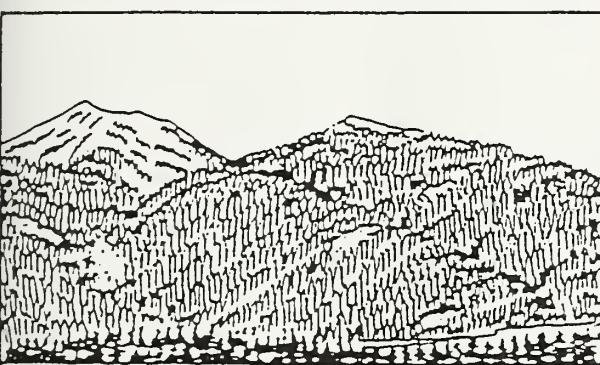
Predominately ecological changes.



### VQO Retention

#### VC II Natural Appearing

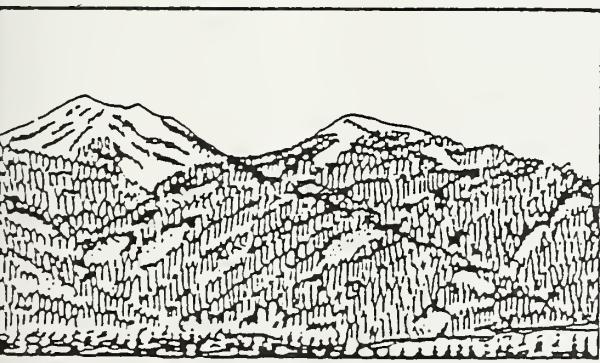
Changes are not evident.



### VQO Partial Retention

#### VC II Slightly Altered

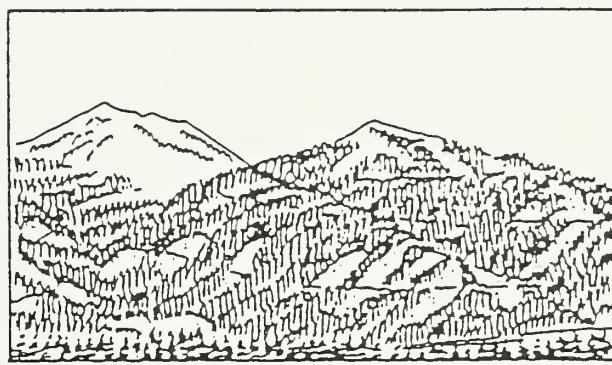
Changes are noticed, but do not attract attention.



### VQO Modification

#### VC IV Moderately Altered

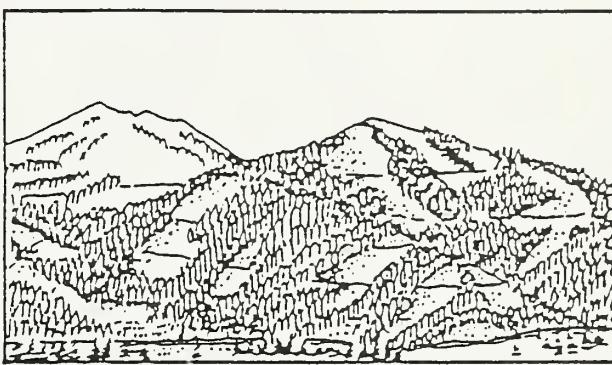
Changes are easily noticed and attract attention.



### VQO Maximum Modification

#### VC V. Heavily Altered

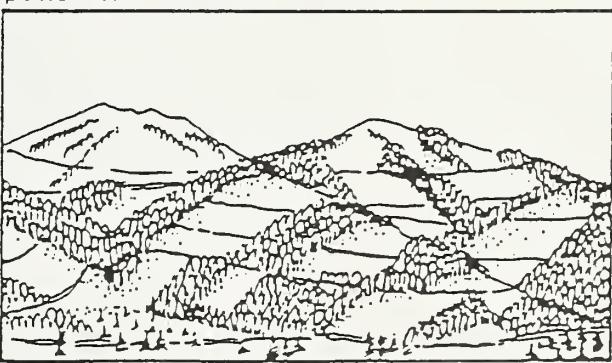
Changes are very strong and attract attention.



### VQO Unacceptable Modification

#### VC VI Drastically Altered

Changes are in glaring contrast and disharmony with natural patterns.



NATURAL CHARACTER DOMINATES

ALTERED CHARACTER DOMINATES

Figure 3-3



# EXISTING VISUAL CONDITION

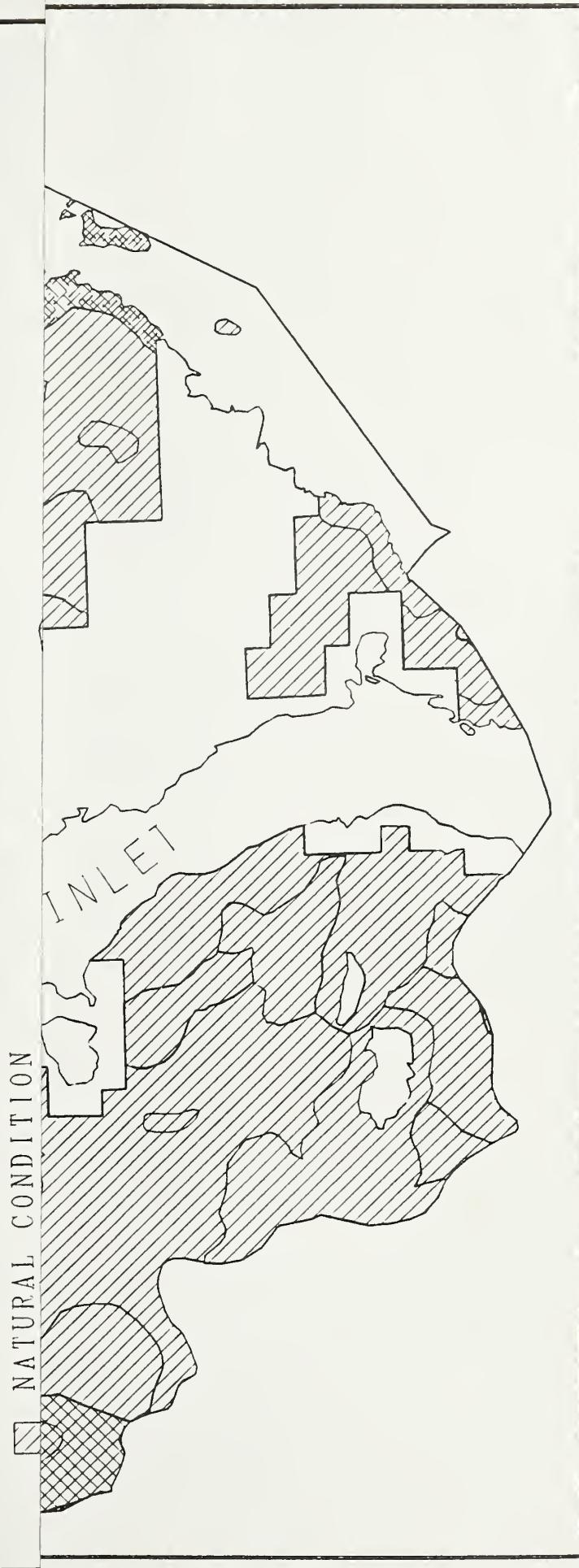


Figure 3-4



# EXISTING VISUAL CONDITION

- NATURAL CONDITION
- NATURAL APPEARING
- SLIGHTLY ALTERED
- MODERATELY ALTERED
- HEAVILY ALTERED



Scale 1 MILE

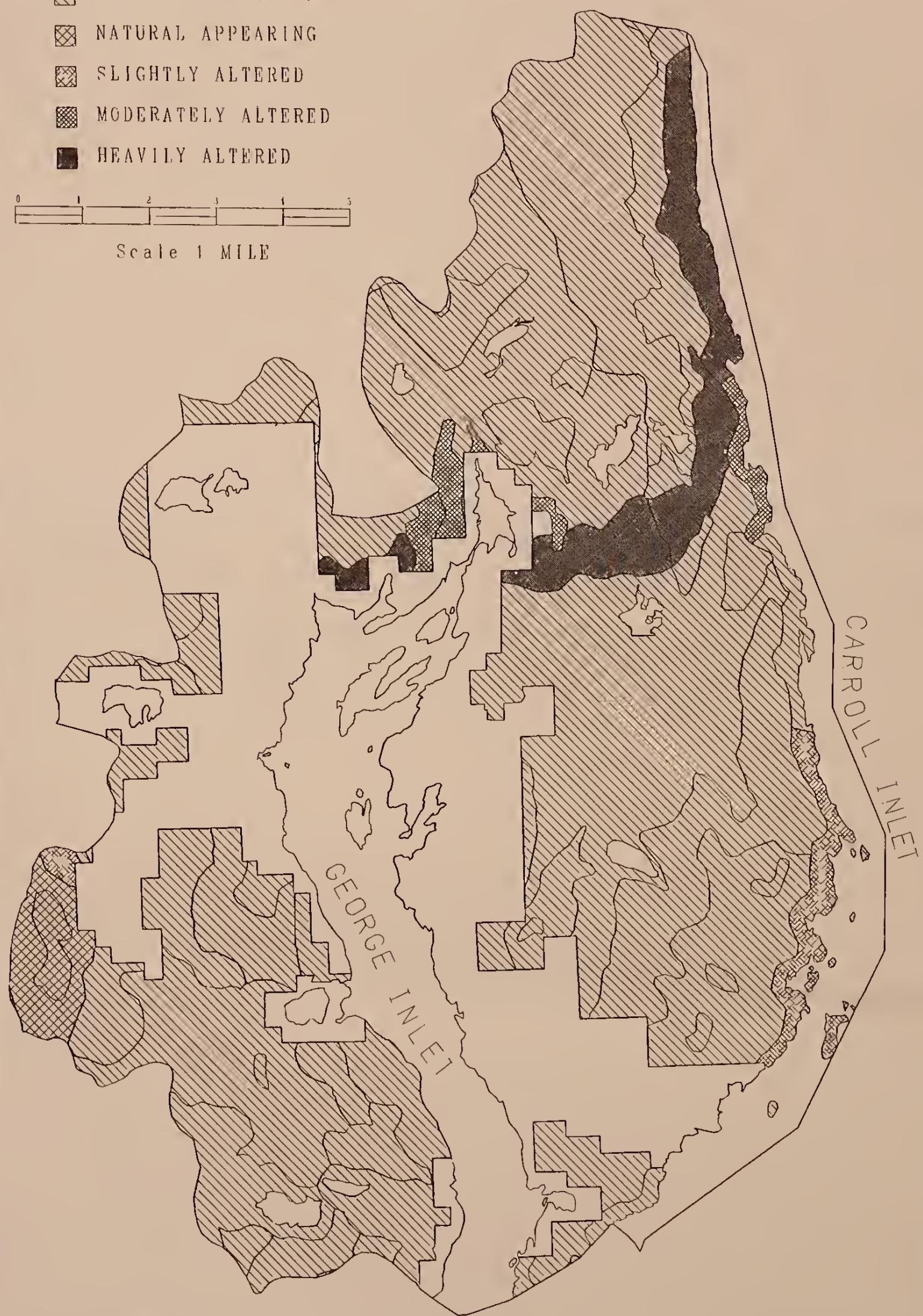
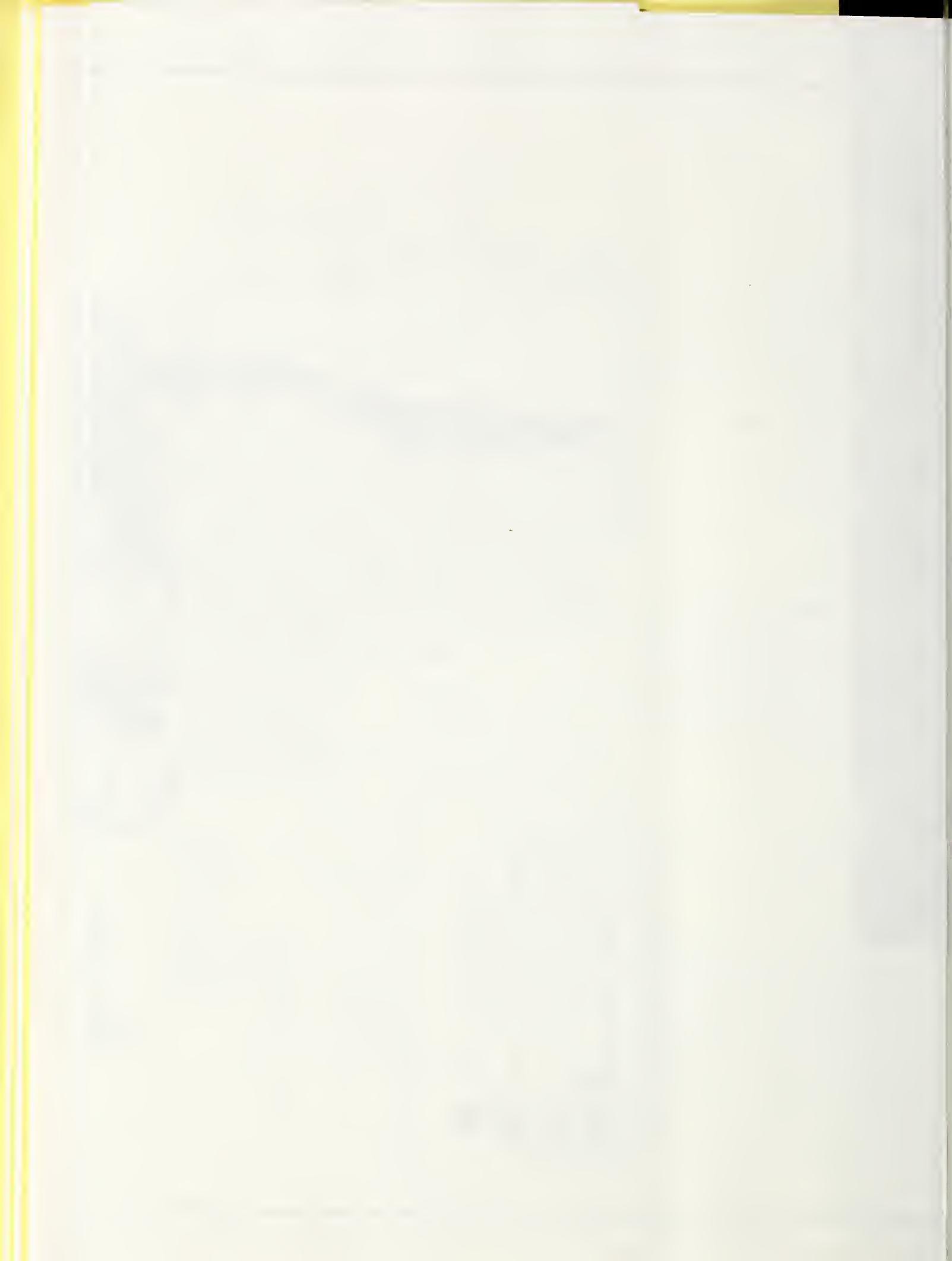


Figure 3-4



# IDENTIFIED VIEWSHEDS ANALYZED IN EIS

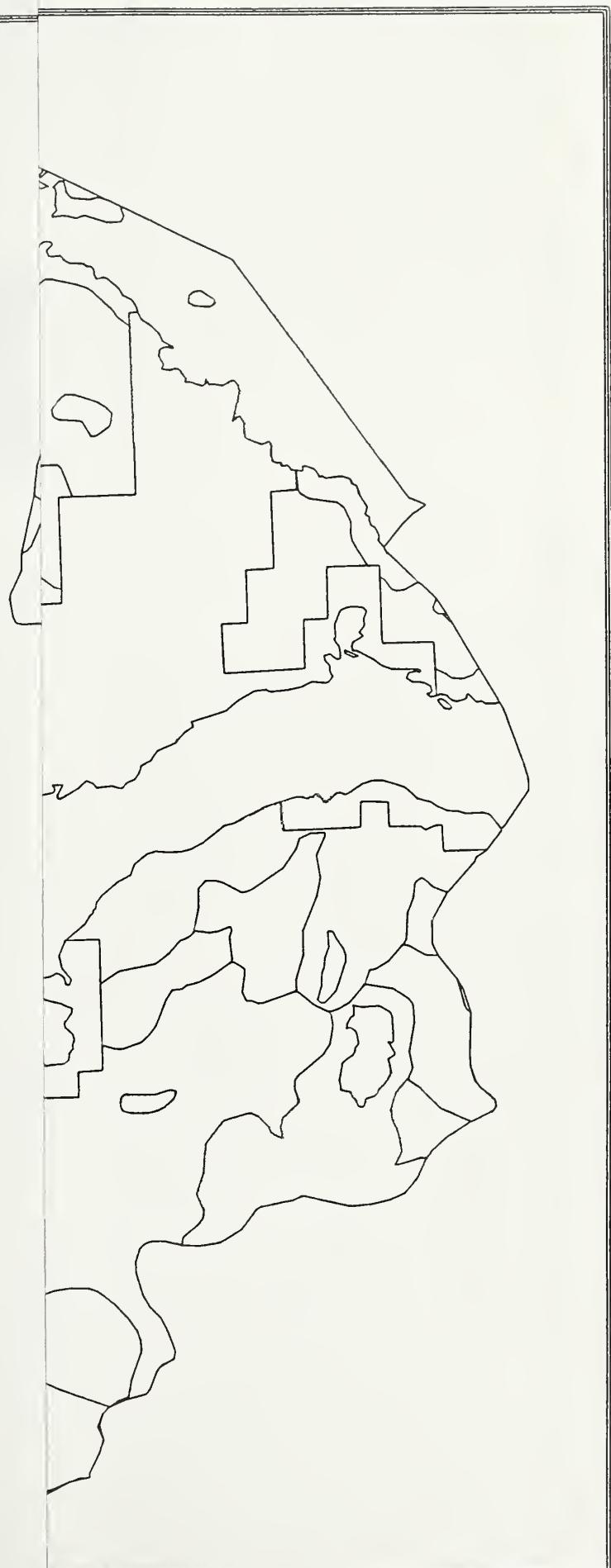


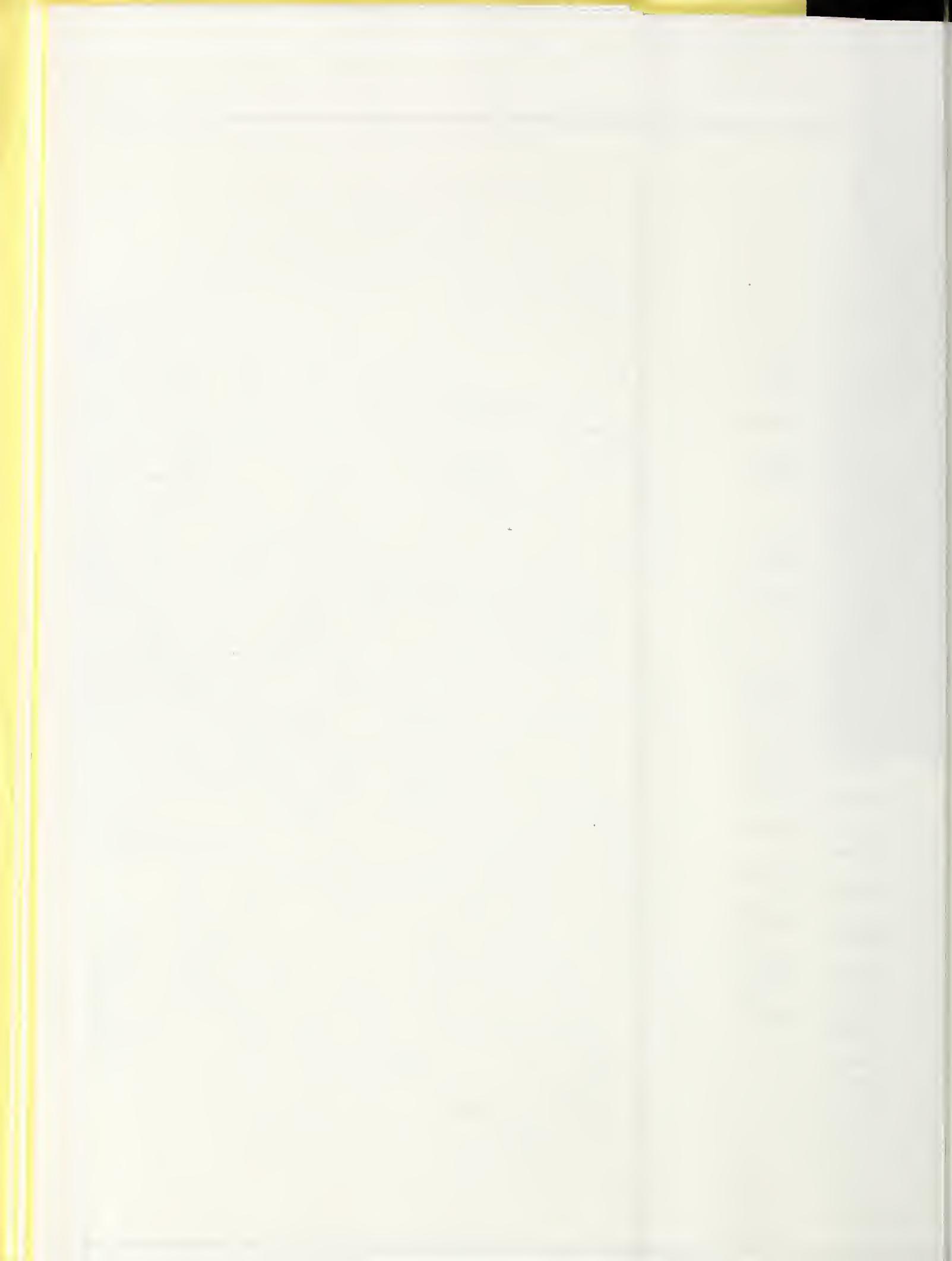
Figure 3-5



# IDENTIFIED VIEWSHEDS ANALYZED IN EIS



Figure 3-5



# ROSS INVENTORY

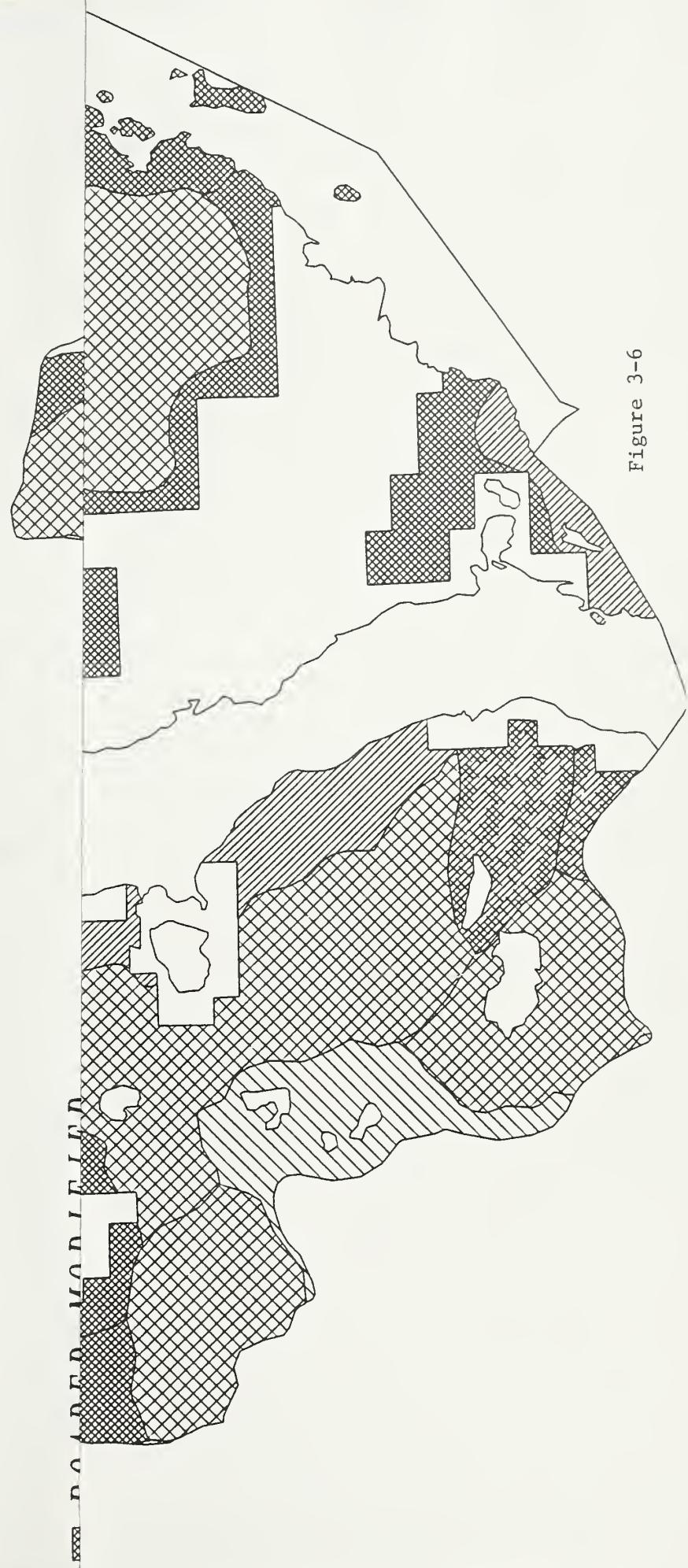


Figure 3-6

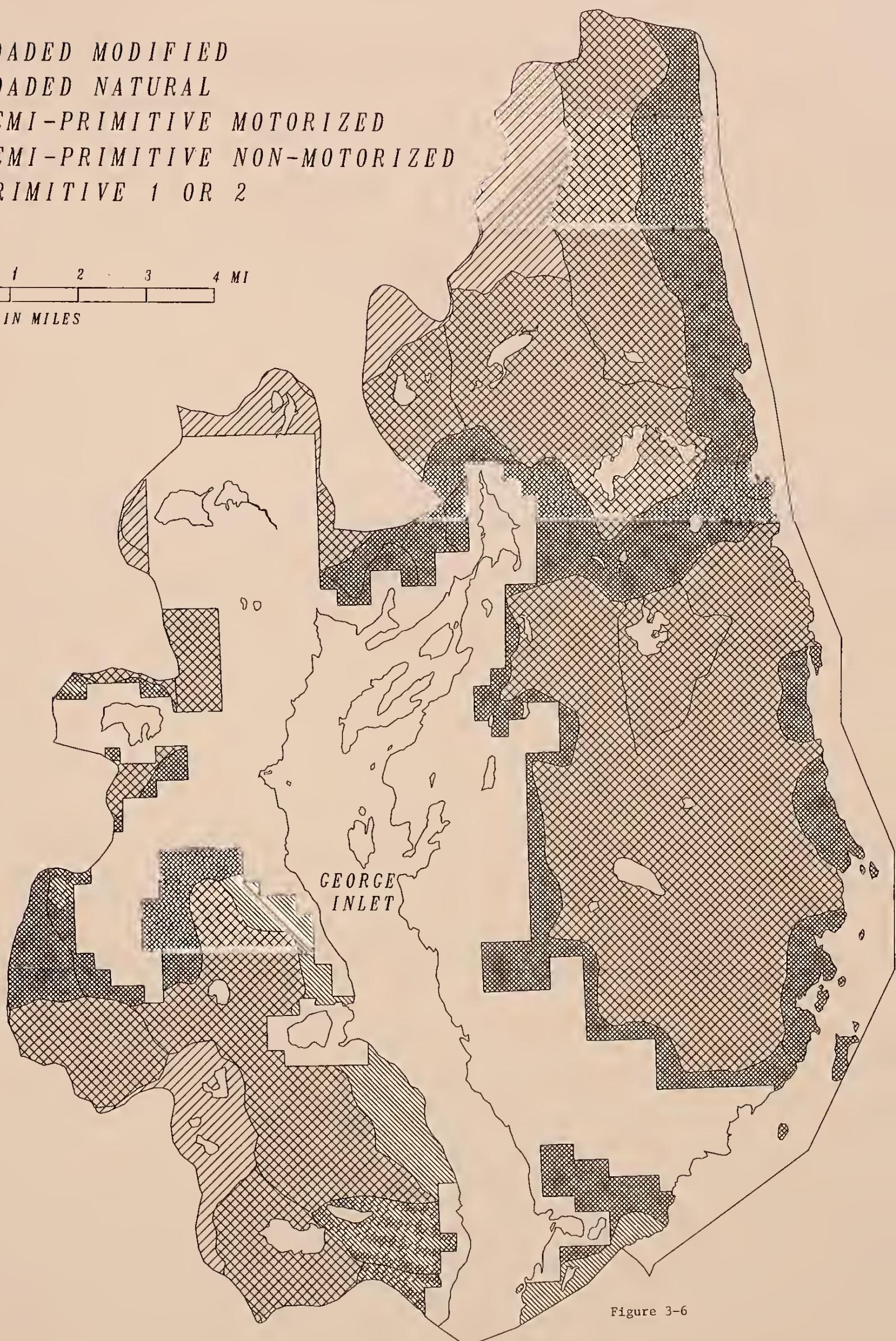


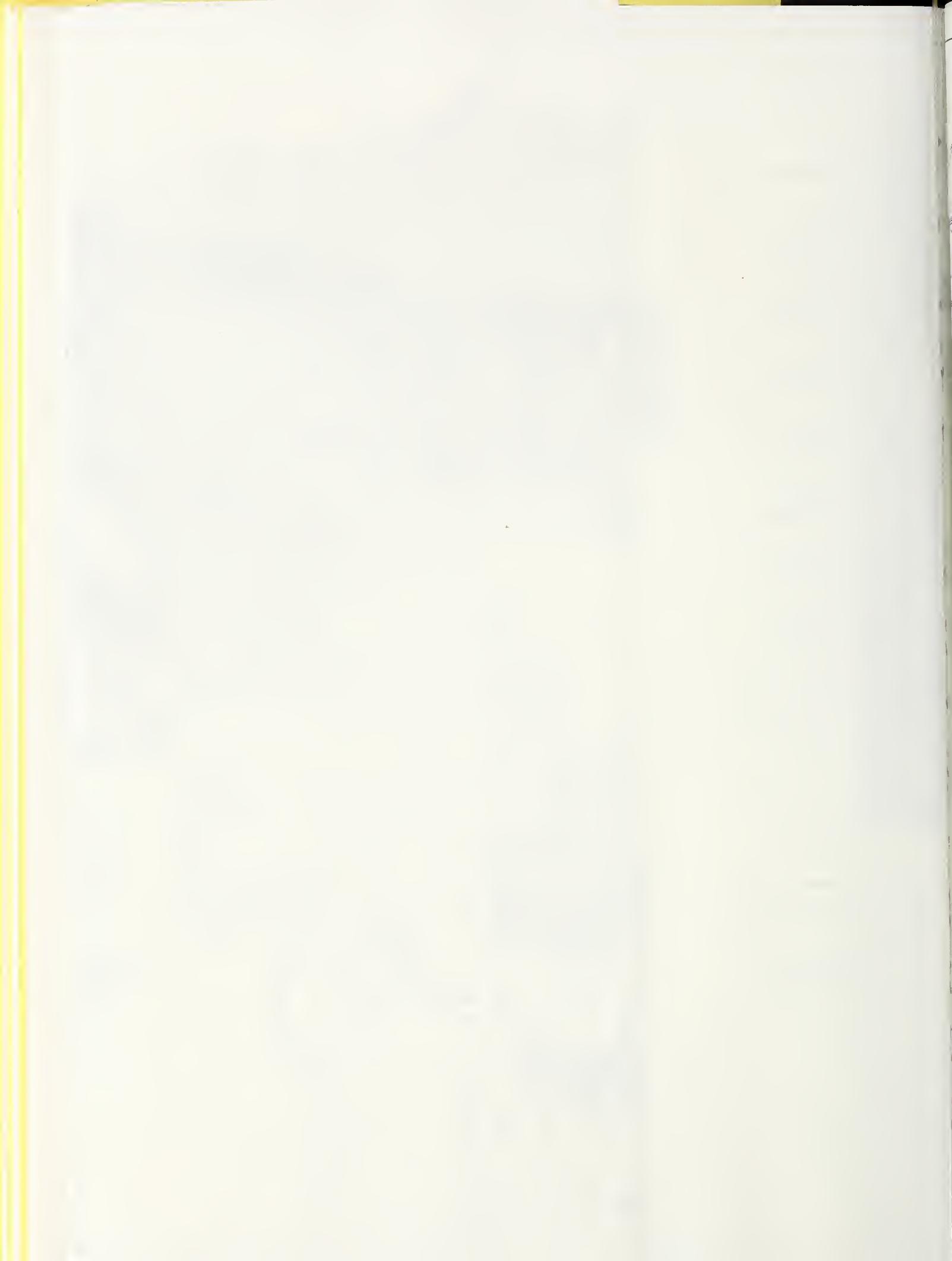
# ROS INVENTORY

- ROADED MODIFIED
- ROADED NATURAL
- SEMI-PRIMITIVE MOTORIZED
- SEMI-PRIMITIVE NON-MOTORIZED
- PRIMITIVE 1 OR 2

0 1 2 3 4 MI

SCALE IN MILES





# RECREATIONAL AREAS

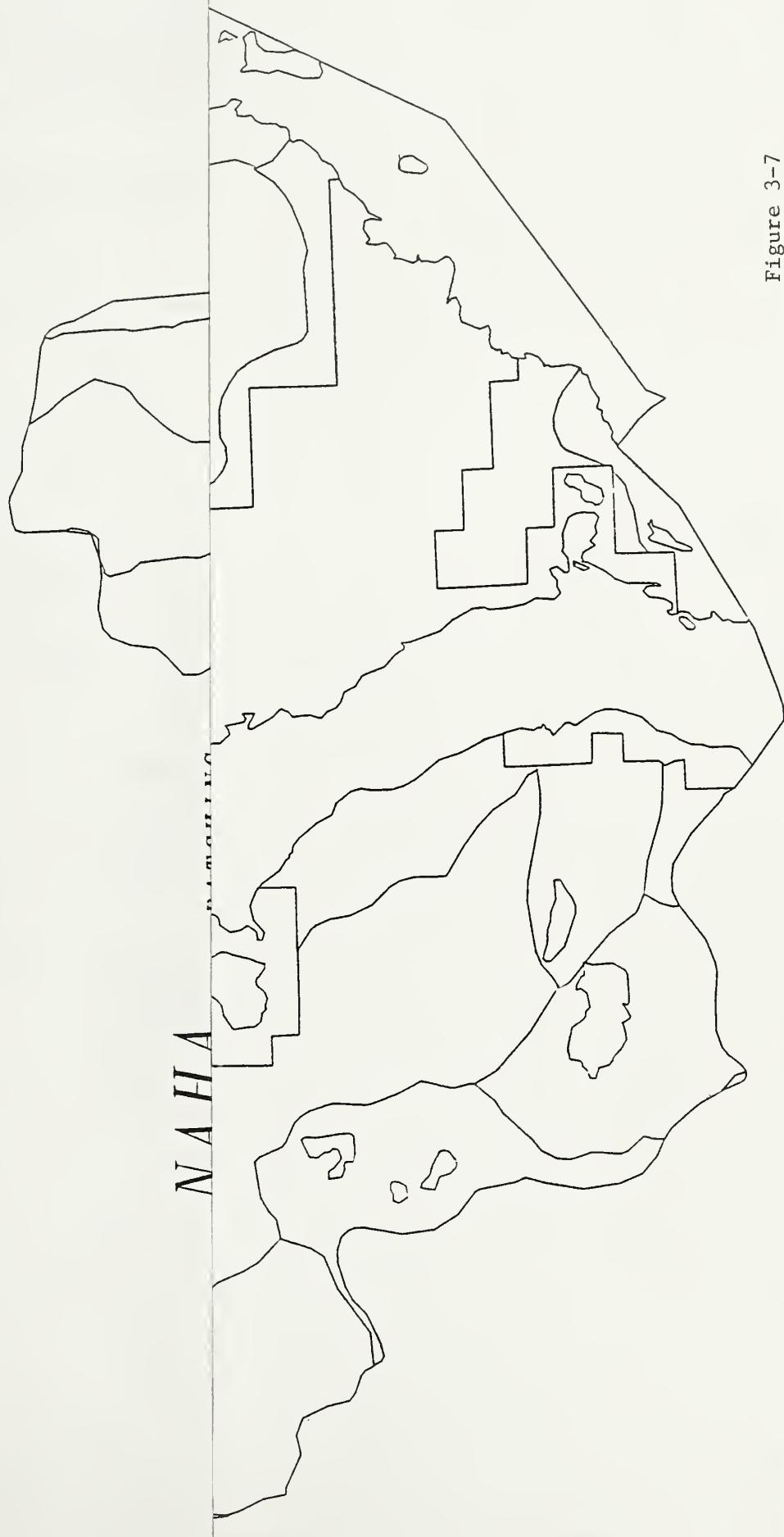


Figure 3-7



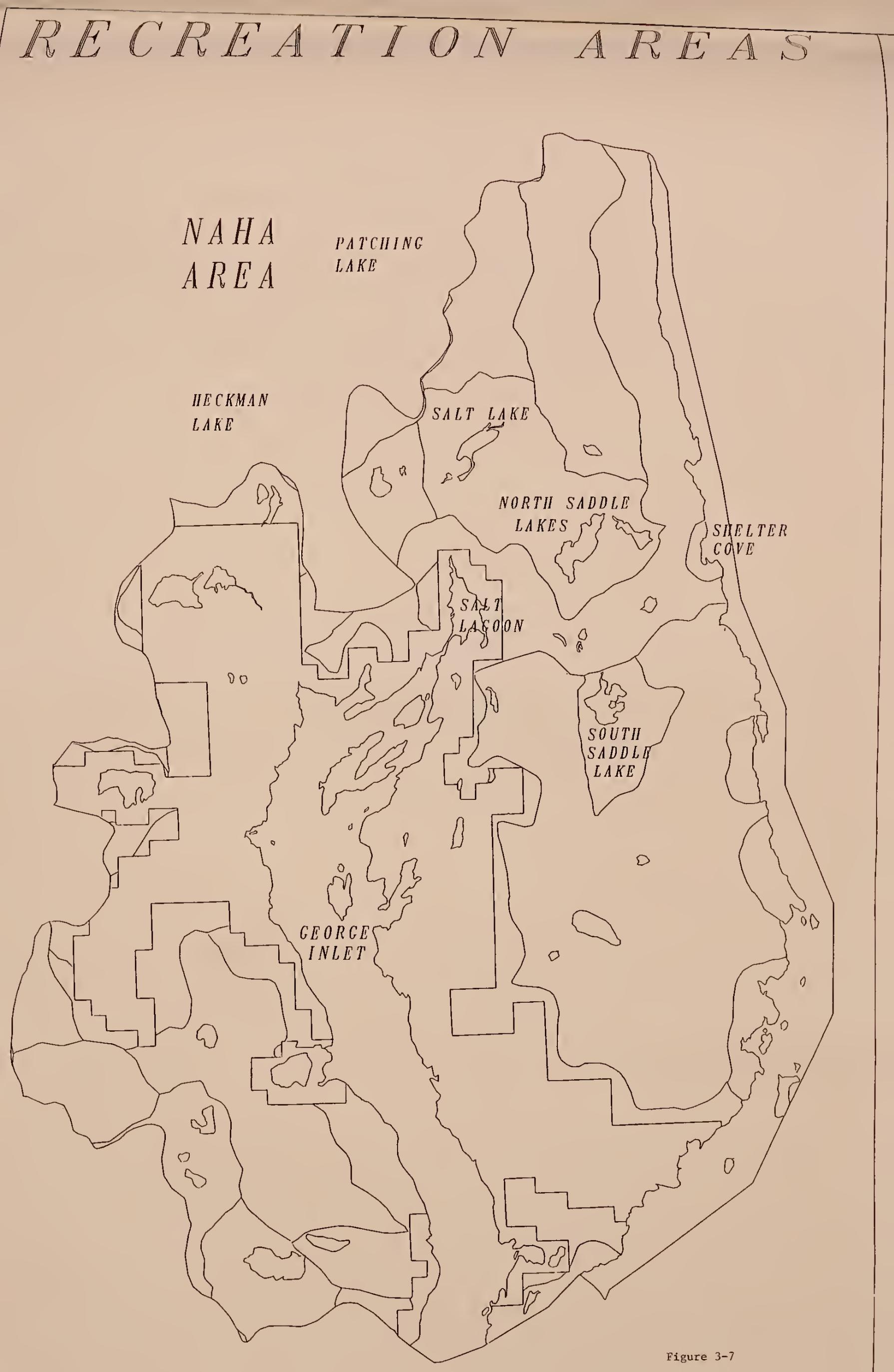
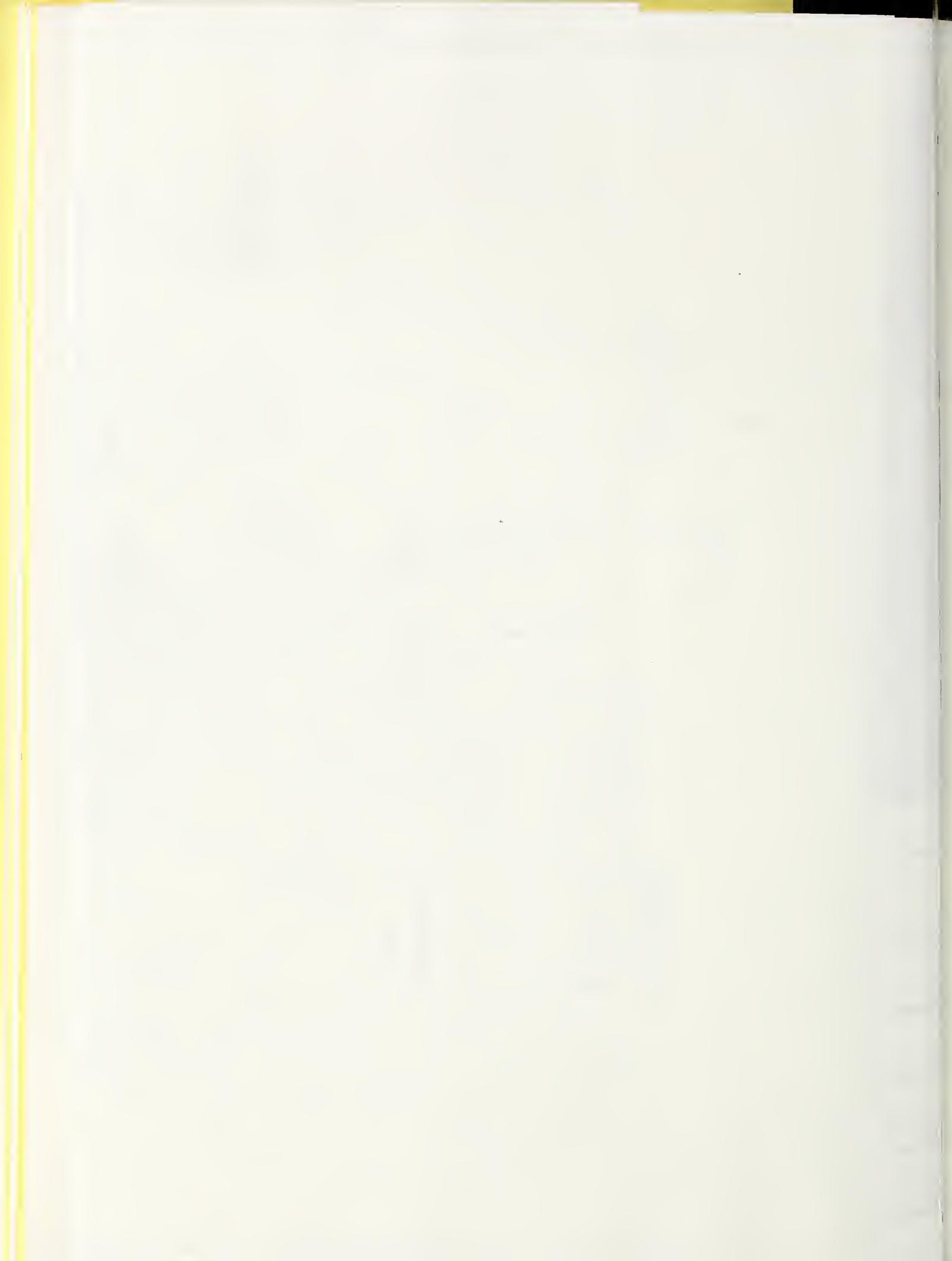


Figure 3-7



# EXISTING ROADS

## Revillagigedo Island Project Area

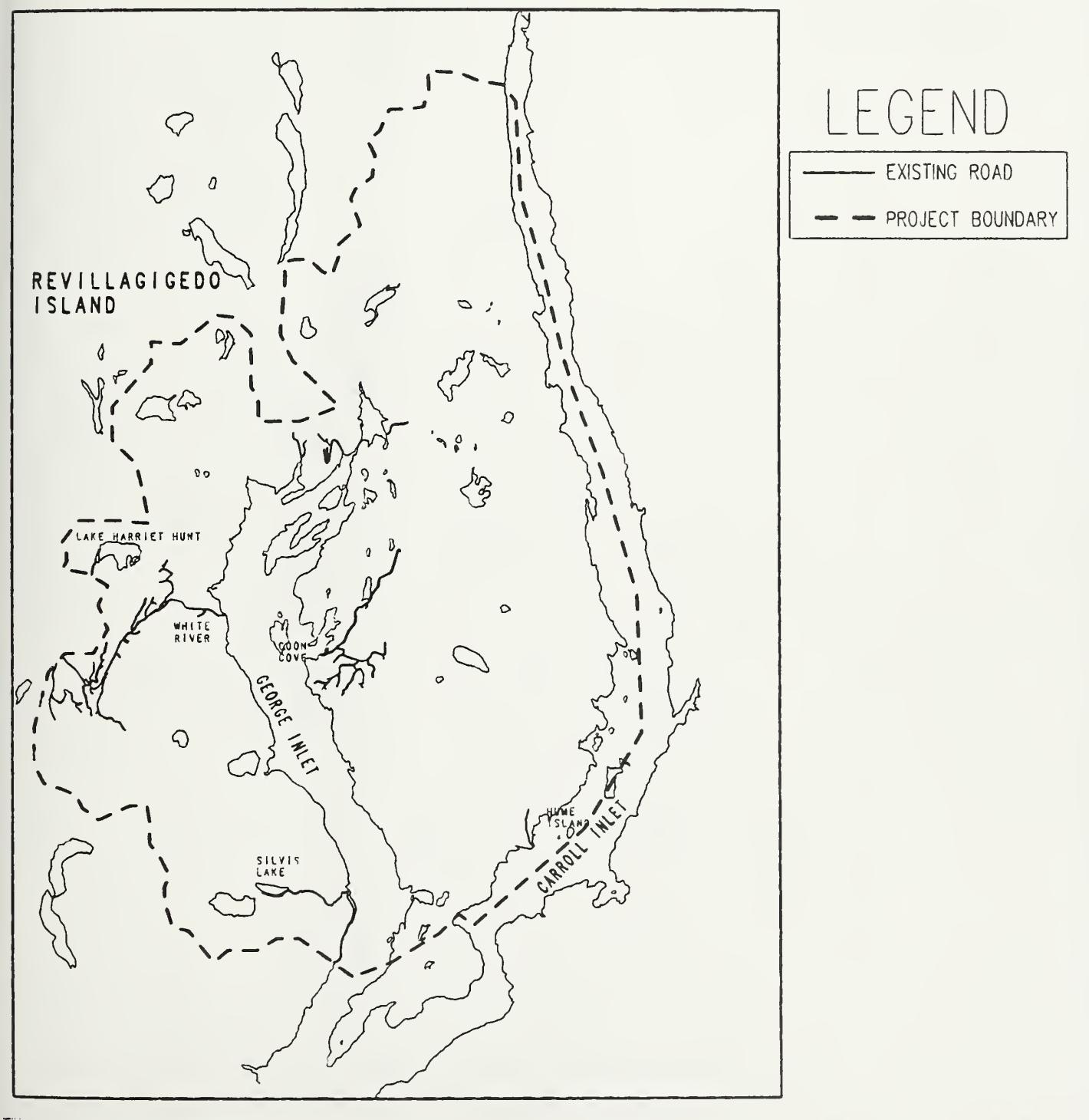
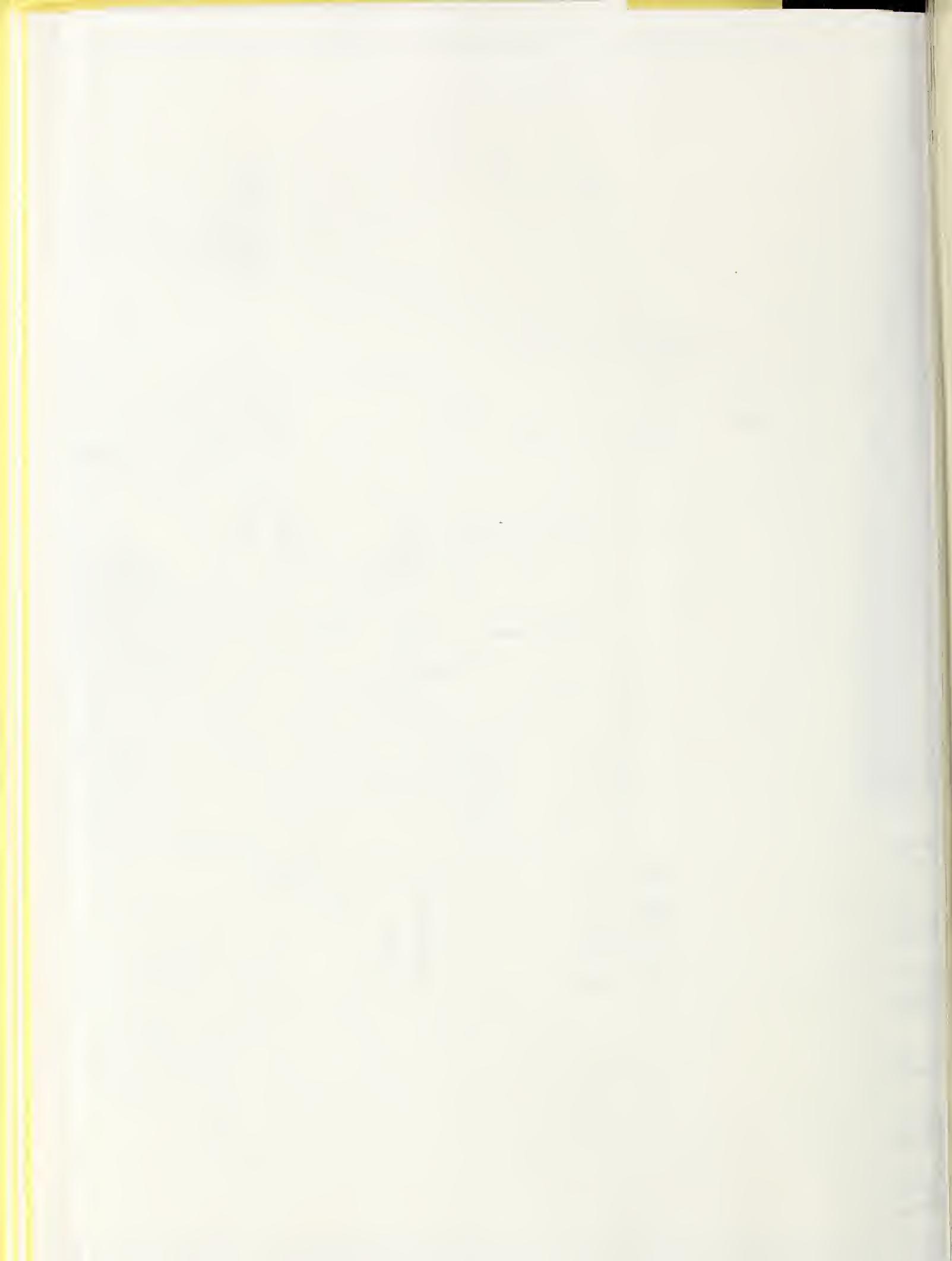
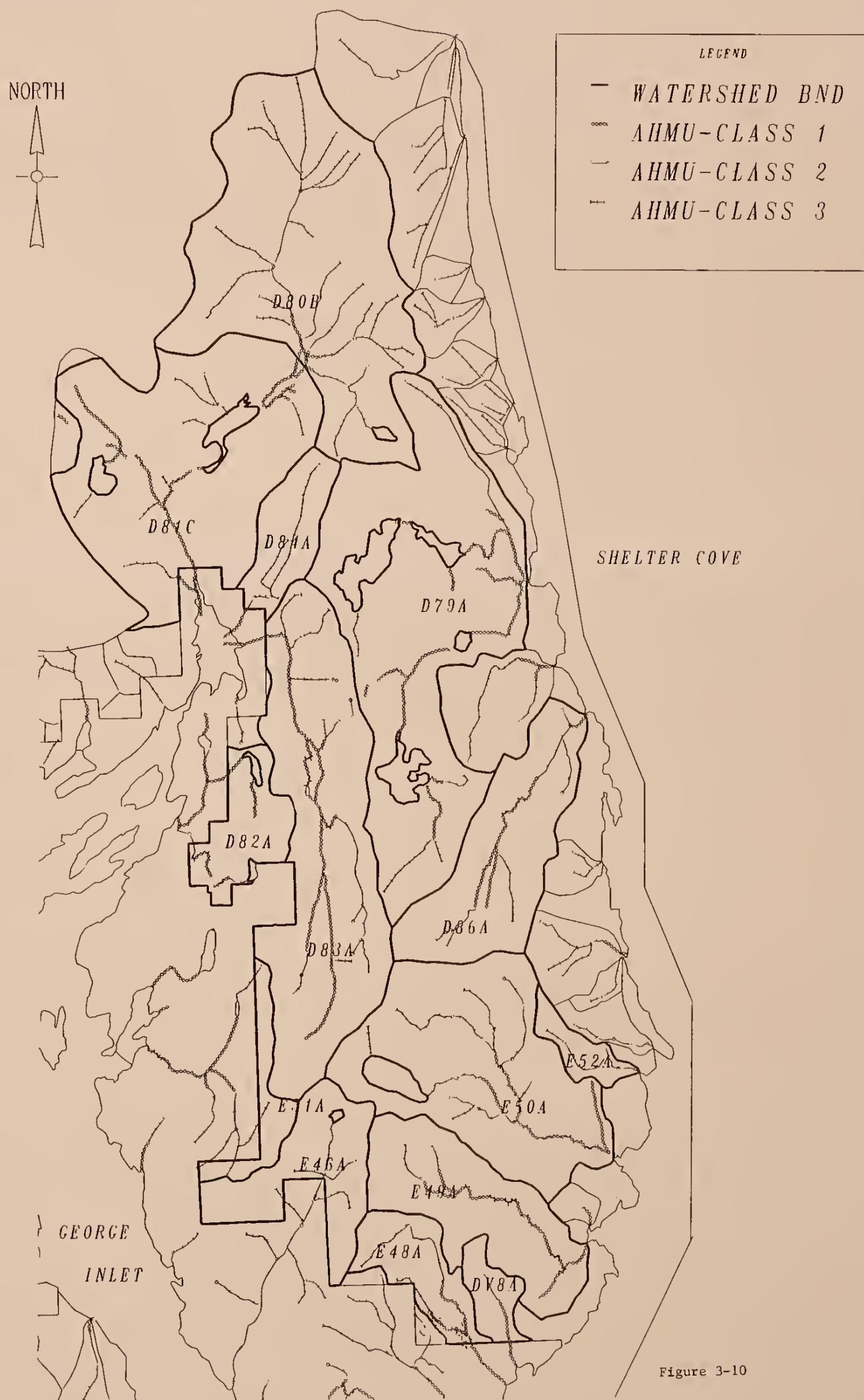
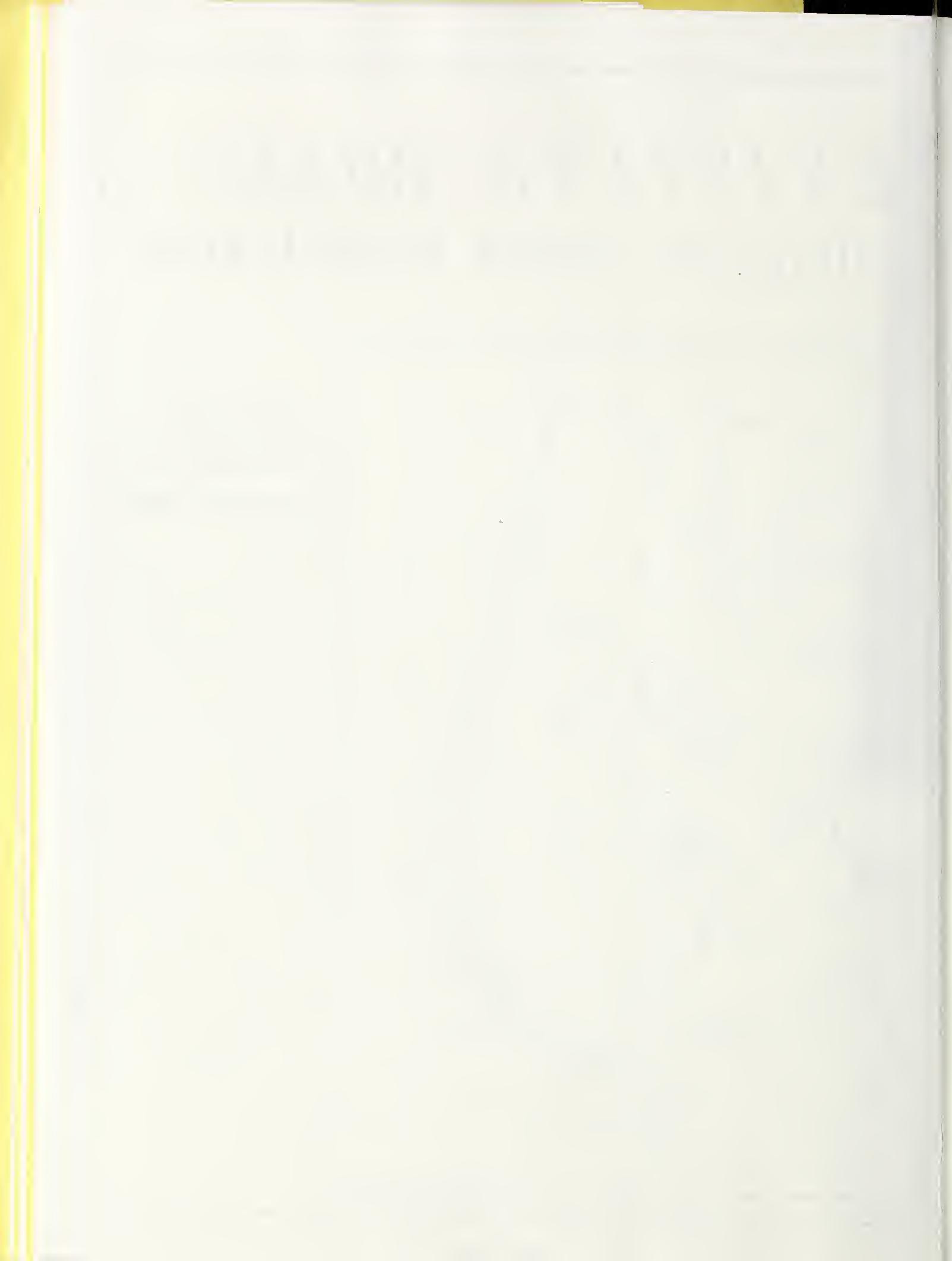


Figure 3-8



# MAJOR WATERSHEDS





# LOG TRANSFER FACILITIES

## Revillagigedo Island Project Area

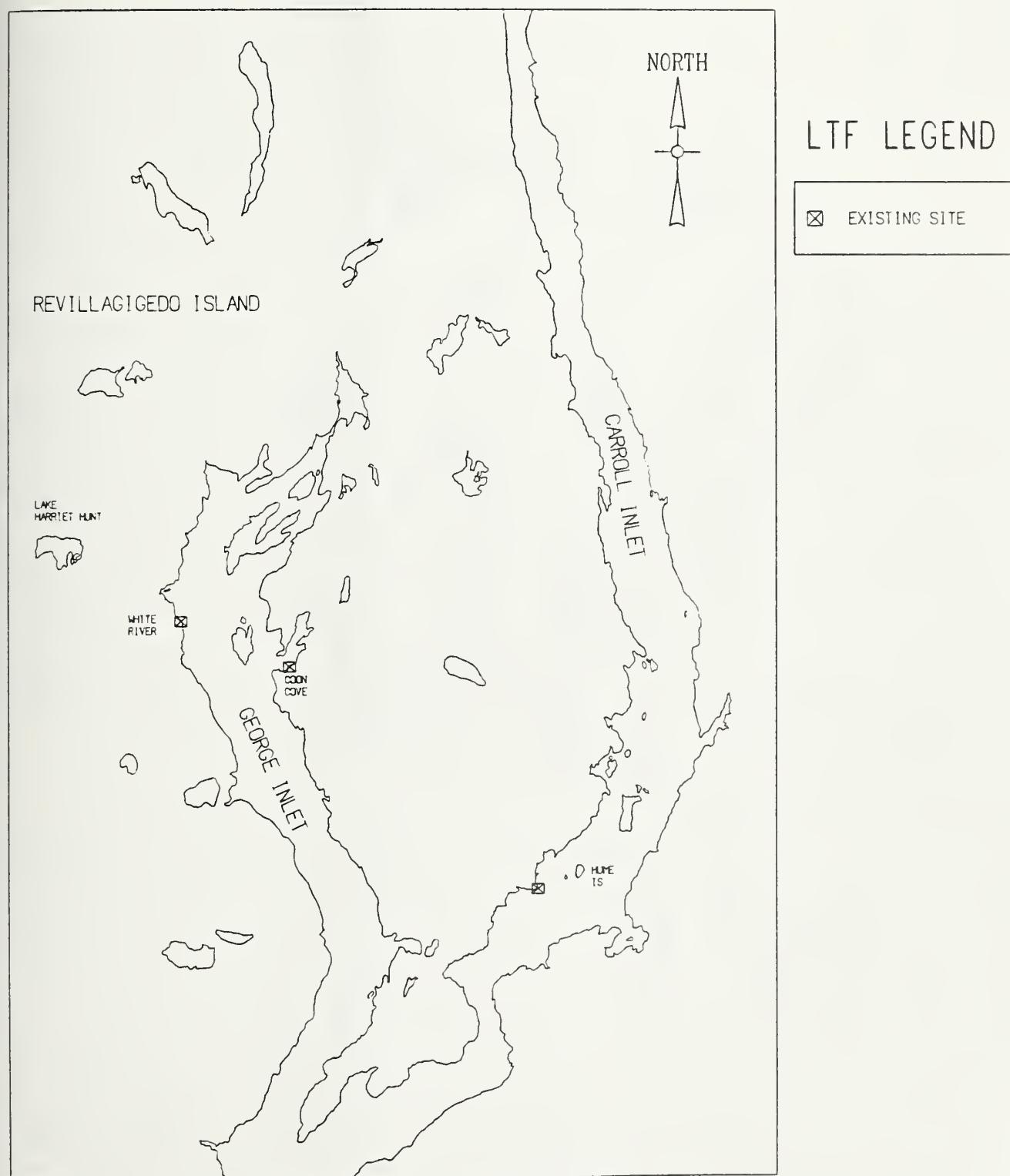


Figure 3-9



# MAJOR WATERSHEDS

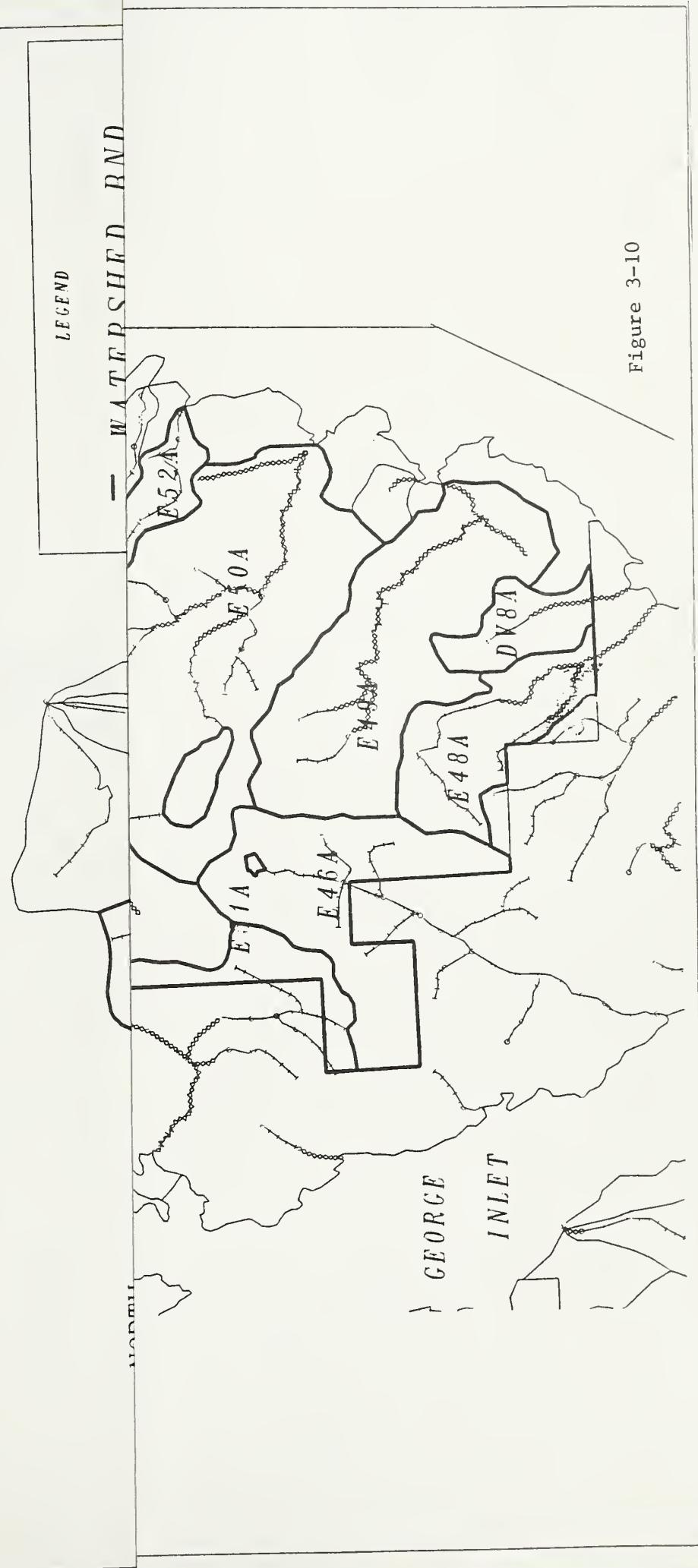


Figure 3-10



# MAJOR CHANNEL TYPES

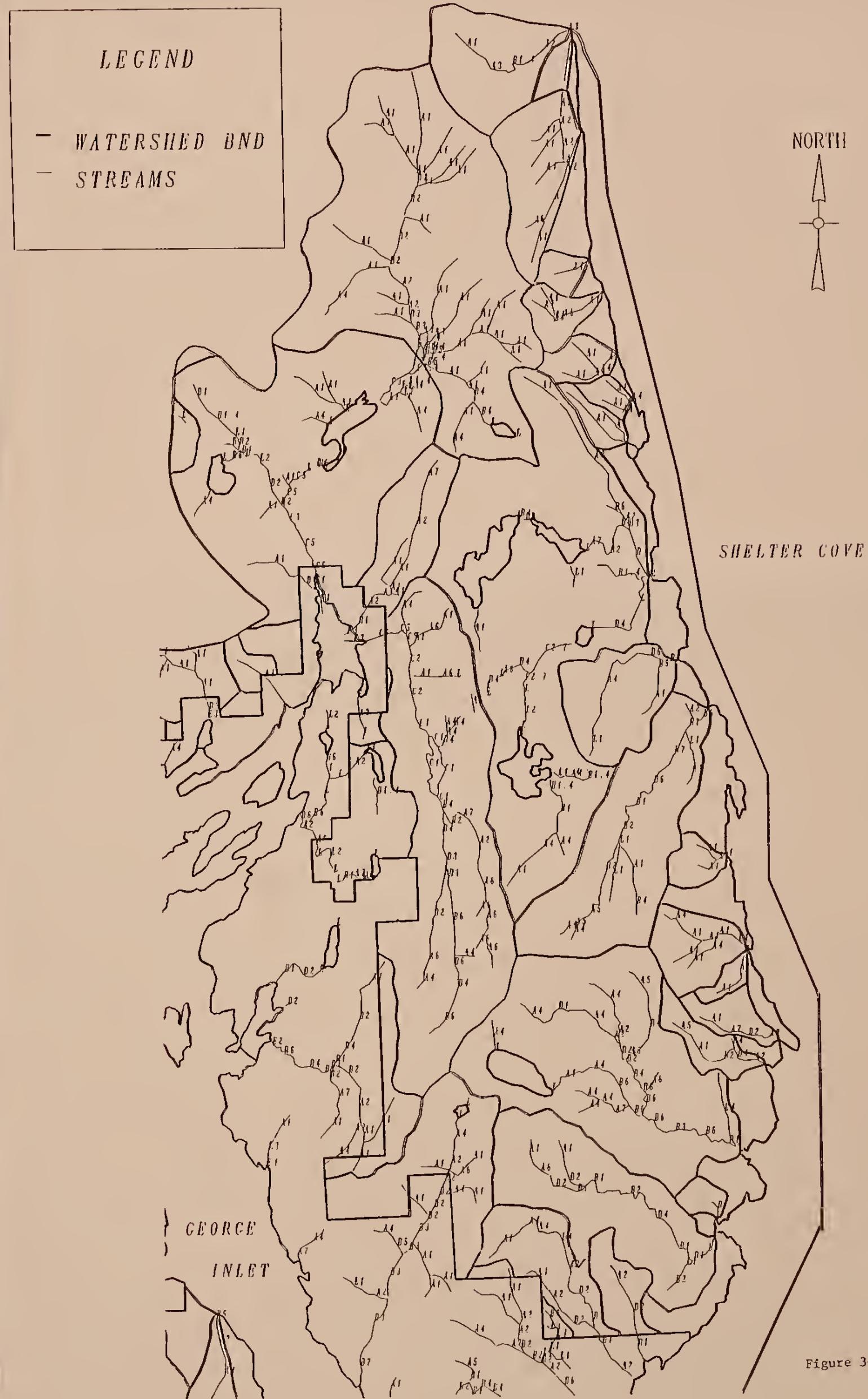
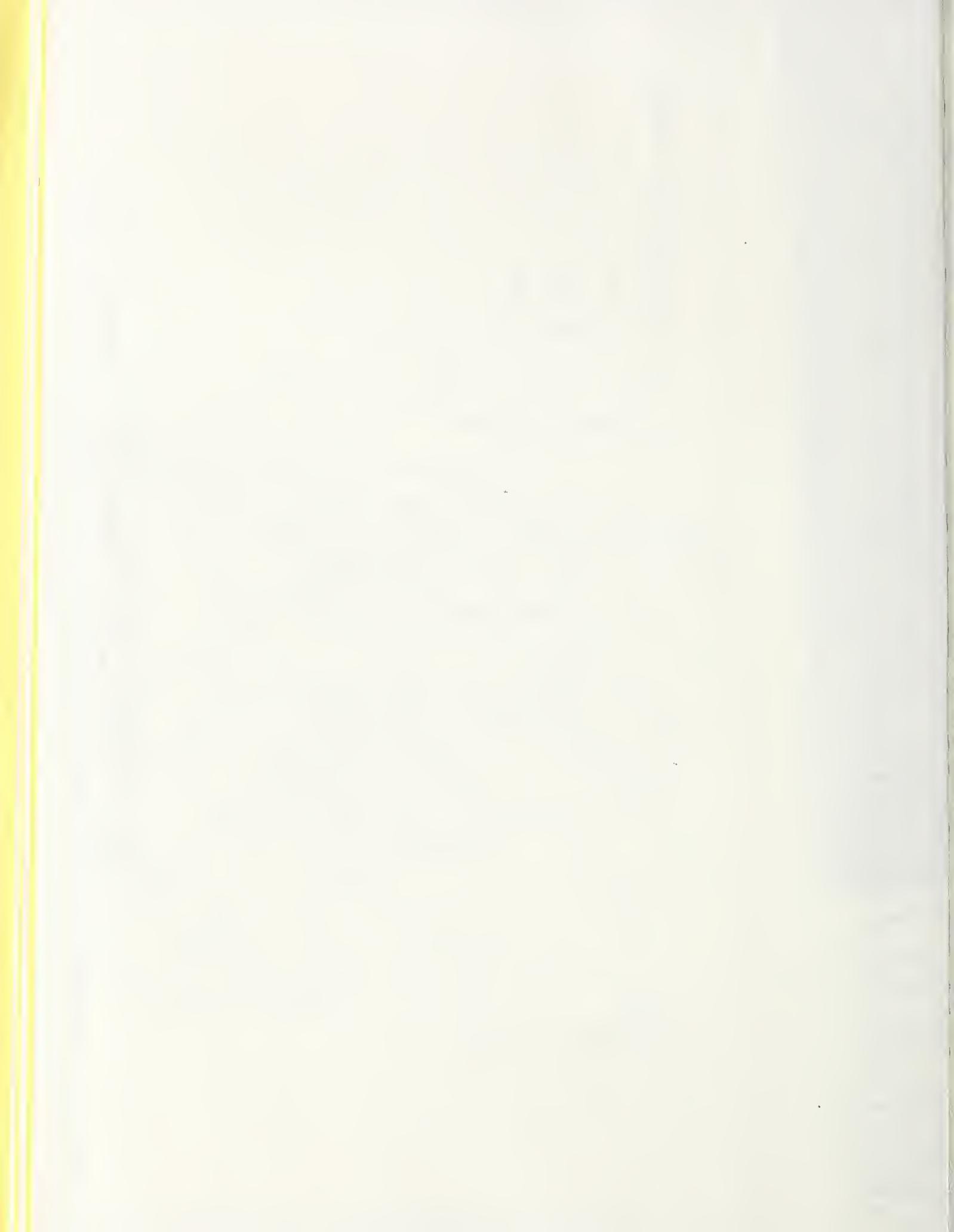


Figure 3-11



# MAJOR CHANNEL

## LEGEND

GEORGE  
WINTERTON

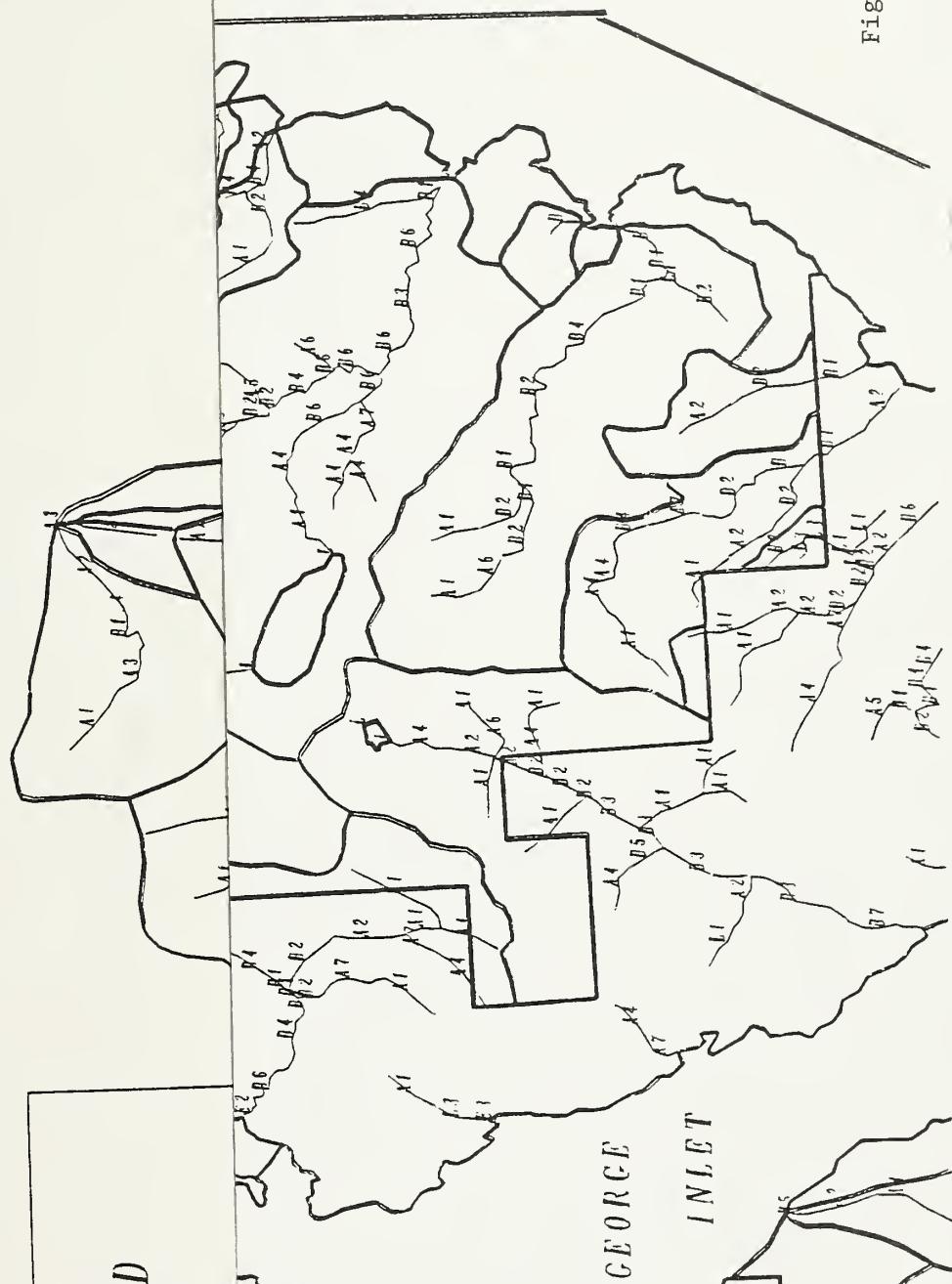


Figure 3-11



# ALTERNATIVE 2

## LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER  
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- STREAM BUFFER



SCALE 1 : 86,740

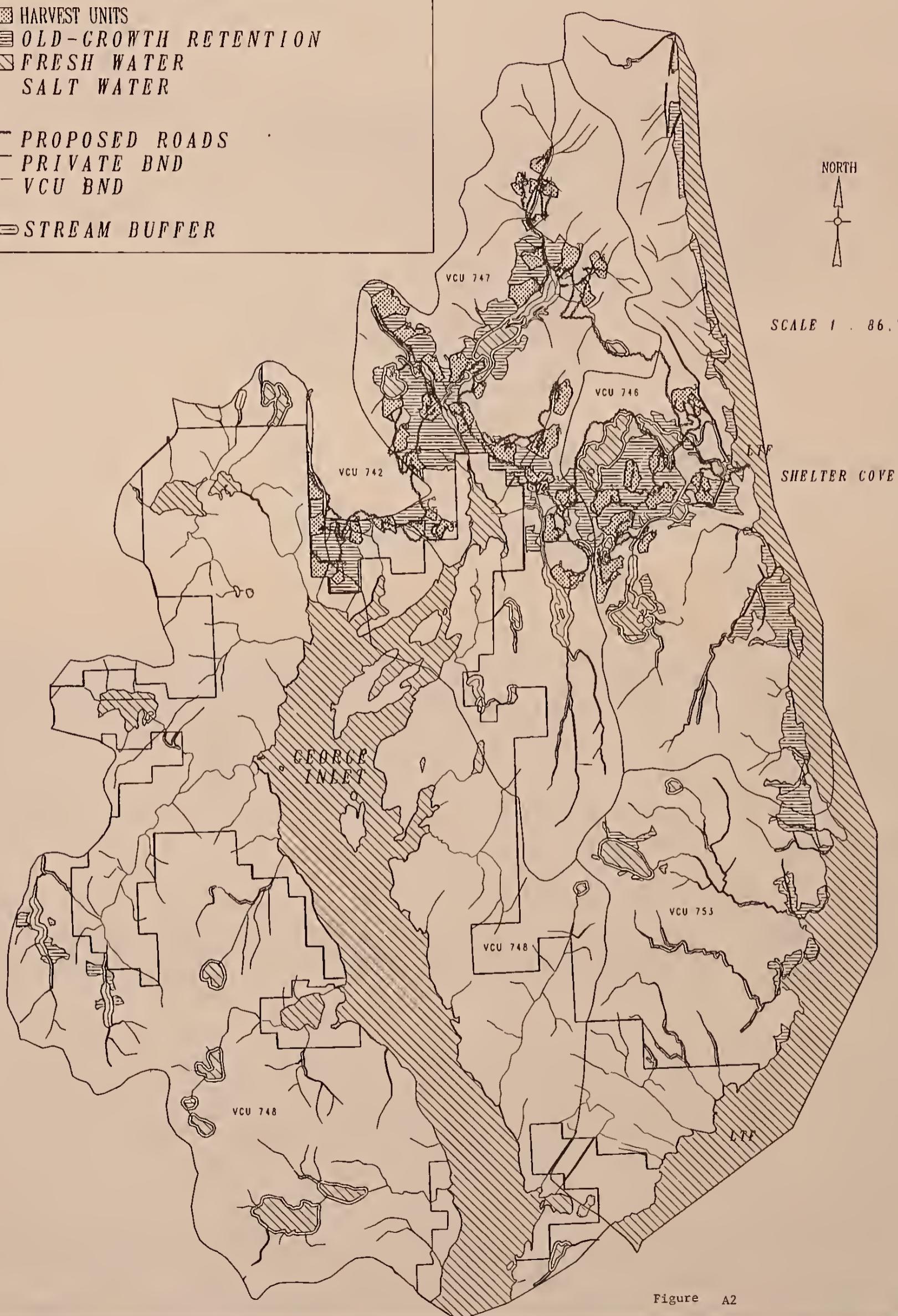


Figure A2



# Chapter 4 Maps



Fig. 4-1

Fig. 4-1

בְּרִיתְמָה נְשָׁמָה

— 3 —

Unit 6

Unit 11

Unit 12

FIELD-OF-VIEW 35mm CAMERA with 2x

Unit 6

Unit 11

Unit 12

Unit 13

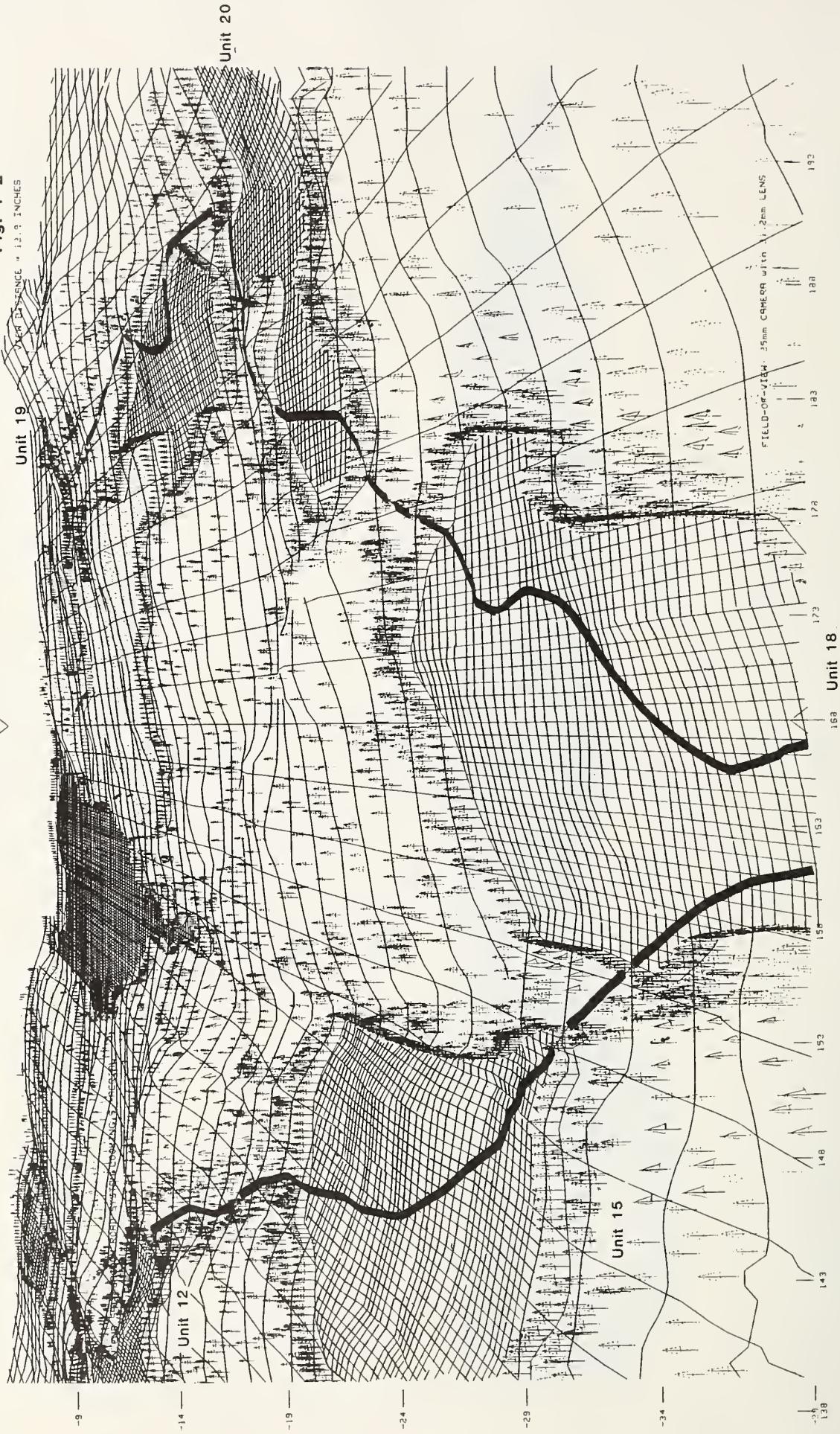
Unit 14

Unit 15

Unit 6

ALT. 2

Fig. 4-2



VIEW DISTANCE = 9.5 INCHES

ALT 2

Eig 1-3

— 27 —  
NOTEBOOKS LARGE LOOKING SOUTH

—  
27

— 22 —

12

Unit 4

Unit 5

A detailed technical drawing of a mechanical assembly, likely a gear or sprocket, showing internal components and a complex mesh of lines representing gear teeth or a chain. The drawing is oriented vertically and includes a scale bar at the bottom.

1  
三  
1

-3-

— 3 —

- 13 -

VIEW DISTANCE = 12.3 INCHES

ALT. 2

Fig. 4-4

N. SADDLE LAKES- N. END LARGE LAKE LOOKING S.

1a —

Unit 4

13 —

8 —

3 —

-2 —

-1 —

Unit 5

3 —

2 —

1 —

✓

-2 —

-1 —

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1.45 1.48 1.50 1.55 1.60 1.65 1.70 1.75 1.80 1.85 1.90 1.95 1.98 2.00

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VIEW DISTANCE = 12.3 INCHES

ALT. 3

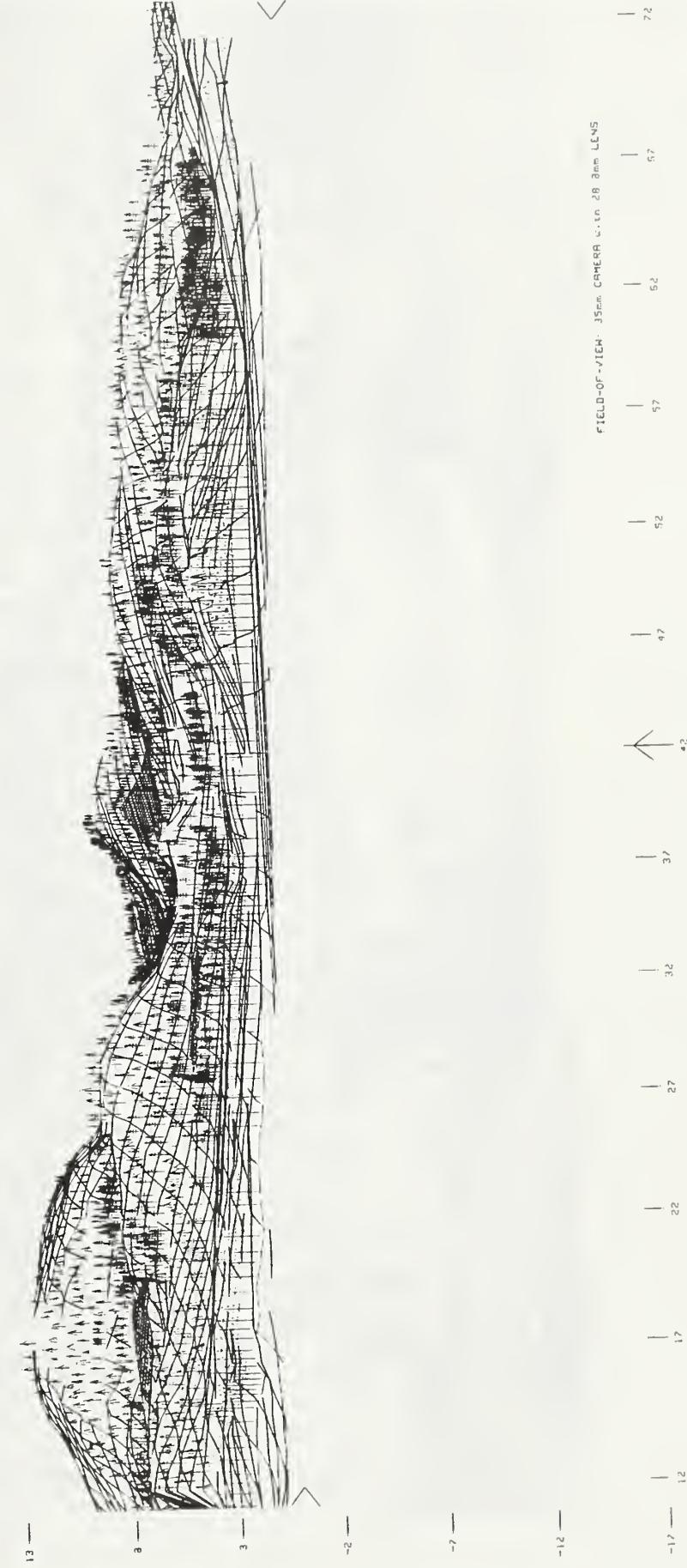
Fig. 4-5

OUTLET OF SALT LAGOON LOOKING NE

23 ——

18 ——

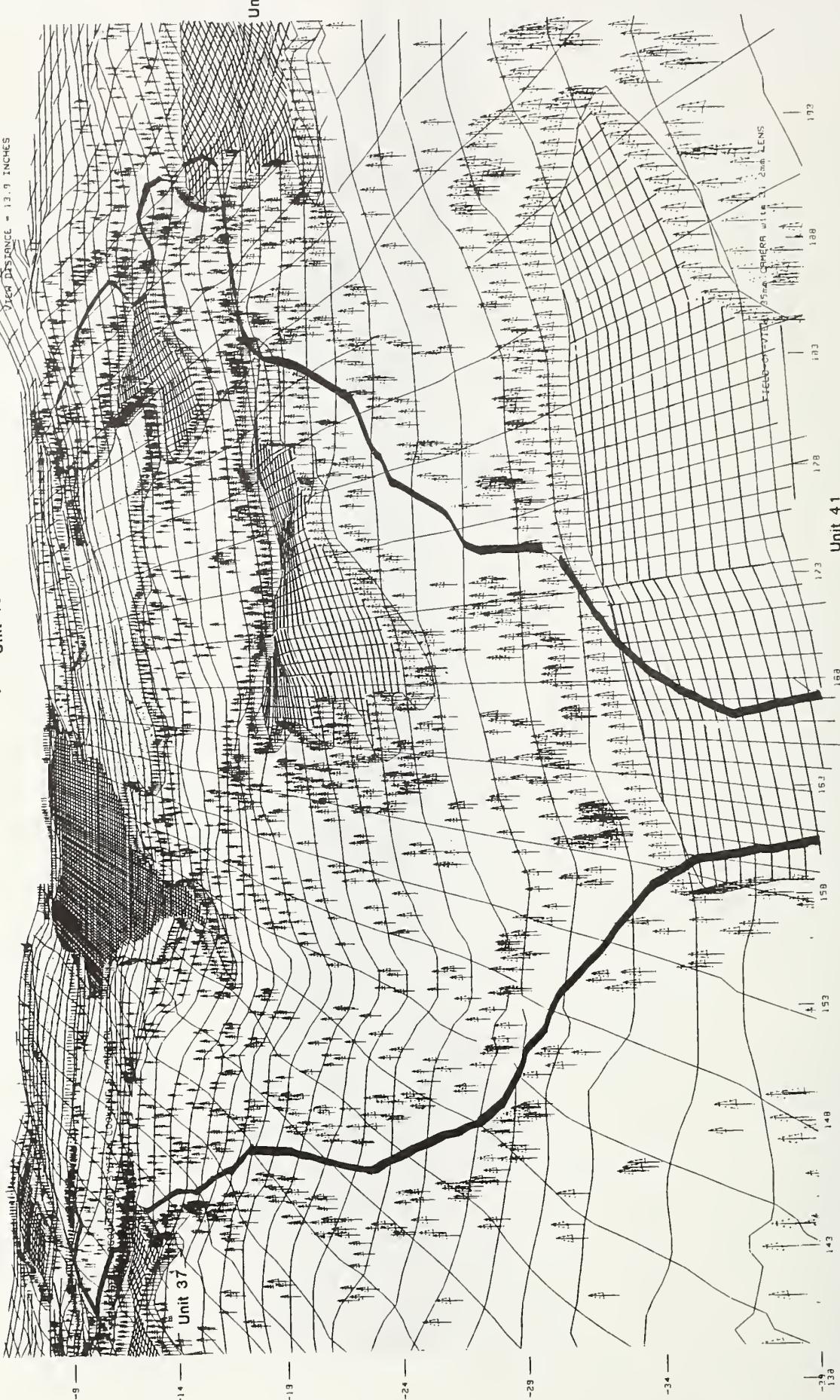
Unit 37      Unit 36      Unit 40      Unit 39



ALT. 3

Fig. 4-6

Unit 45      Unit 43      Unit 41  
VIEW DISTANCE = 13.9 INCHES



VIEW DISTANCE = 12.3 INCHES

Alt. 3

Fig. 4-7

GRAND C. LAKE - N. END LARGE LAKE LOOKING S.

—  
23



VISUAL DISTANCE = 5' INCHES

ALT. 3

Fig. 4-8

NCRTU SEDIMENT LINES - PRICE LIME LOCATING SOUTH

27 —

22 —

17 —

Unit 14

Unit 16



-3 —

-5 —

-13 —

-18 —

-12a —

VIEW DISTANCE = 11.9 INCHES

ALT. 4

Fig. 4-9

15 —  
EAST OF SHELTER COVE - LOOKING NW

20 —

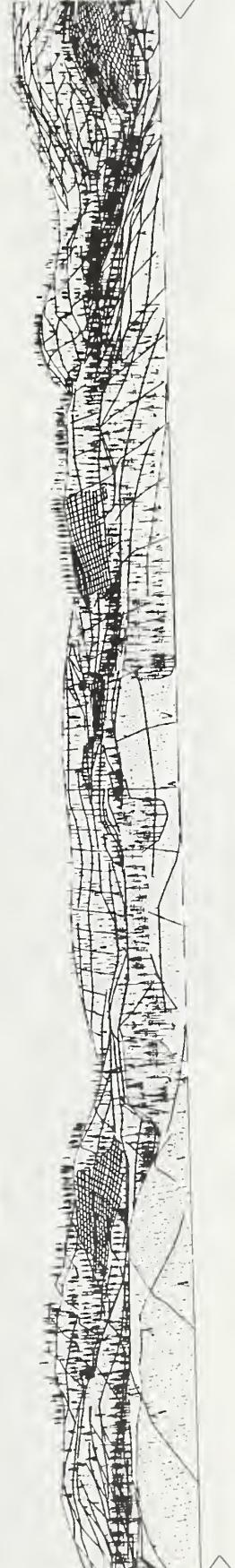
10 —

Unit 34

Unit 23

Unit 26

Unit 27



-5 —

-10 —

-15 —

-20 —

FIELD-OF-VIEW - 35mm CAMERA - 26.7mm LENS

262	26?	272	277	282	287	297	302	307	312	317	322
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VIEW DISTANCE = 11.9 INCHES

Alt. 4

22 — 25 MI. N. OF ISLAND PT. LOOKING SW

— 17 —

12

12

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Unit 7

Unit 6

Unit 5

4

1

204	209	214	219	224	229	234	239	244	249	254	259	264
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VIEW DISTANCE ~ 12.5 INCHES

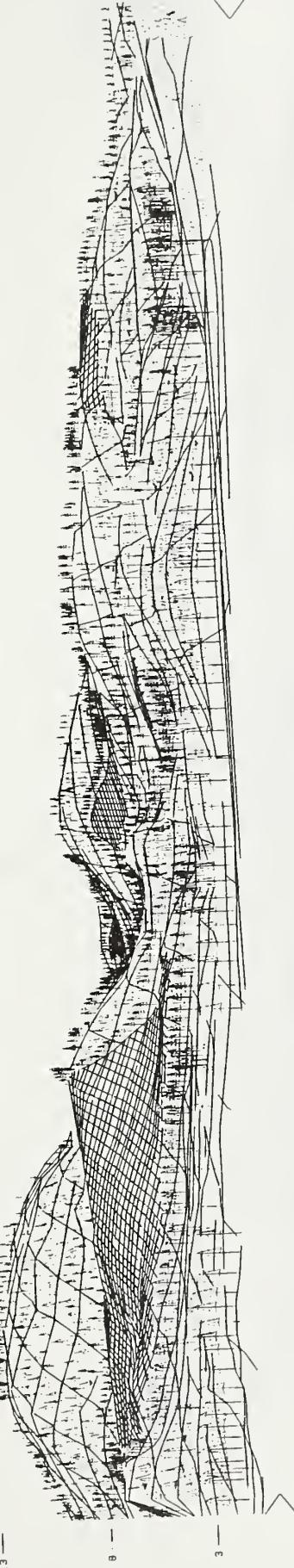
ALT. 4

Fig. 4-11

OUTLET OF SALT LAGOON LOOKING NE

18 —

Unit 44      Unit 45      Unit 46      Unit 43      Unit 38



-2 —

-7 —

-12 —

-17 —      12

FIELD-OF-VIEW: 35mm CAMERA with 28 mm LENS  
1      72  
57      62  
52      67  
47      42  
37      32  
27      22  
17      12

VIEW DISTANCE = 12.3 INCHES

23 —

OUTLET OF SALT LAGOON LOOKING NE

13 —

13 —

Unit 24

Unit 23

Unit 23

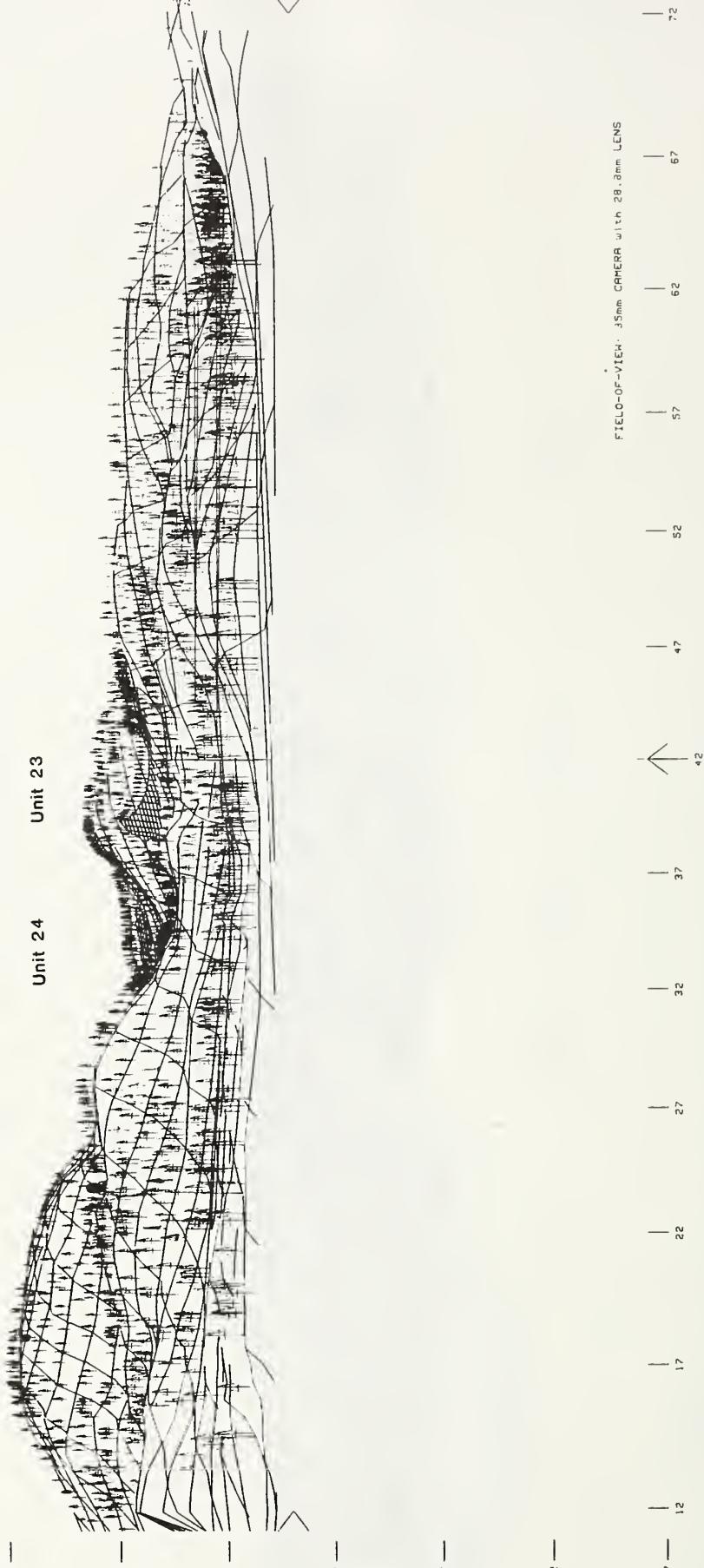
8 —

3 —

-2 —

-7 —

-12 —



ALT. 5

Fig. 4-12

VIEW DISTANCE = 12.3 INCHES



12

17

22

27

32

37

42

47

52

57

62

67

72

77

82

42

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VIEW DISTANCE = 11.9 INCHES

ALT. 6

Fig. 4-13

20 — EAST OF SHELTER COVE- LOOKING NW

15 —

Unit 19

10 —

Unit 20

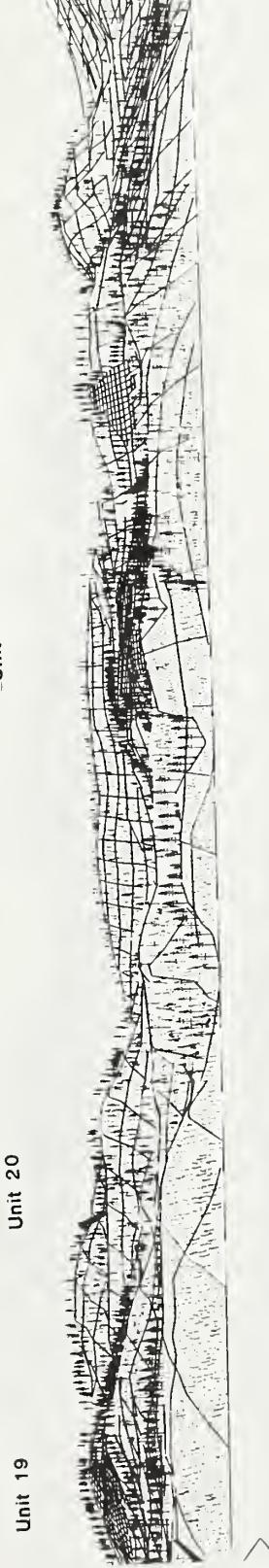
5 —

Unit 22

2 —

Unit 23

-5 —



-10 —

-15 —

-20 —

FIELD-OF-VIEW = 35mm. CAMERA = 25.7mm LENS

322  
317  
312  
307  
302  
297  
292  
287  
282  
272  
267  
262

VIEW DISTANCE = 11.9 INCHES

ALT. 6

Fig. 4-14

2.5 MI. N. OF ISLAND PT. LOOKING SW

12 —

17 —

12 —

Unit 16

7 —

Unit 6

2 —

Unit 8

-3 —



-8 —

-13 —

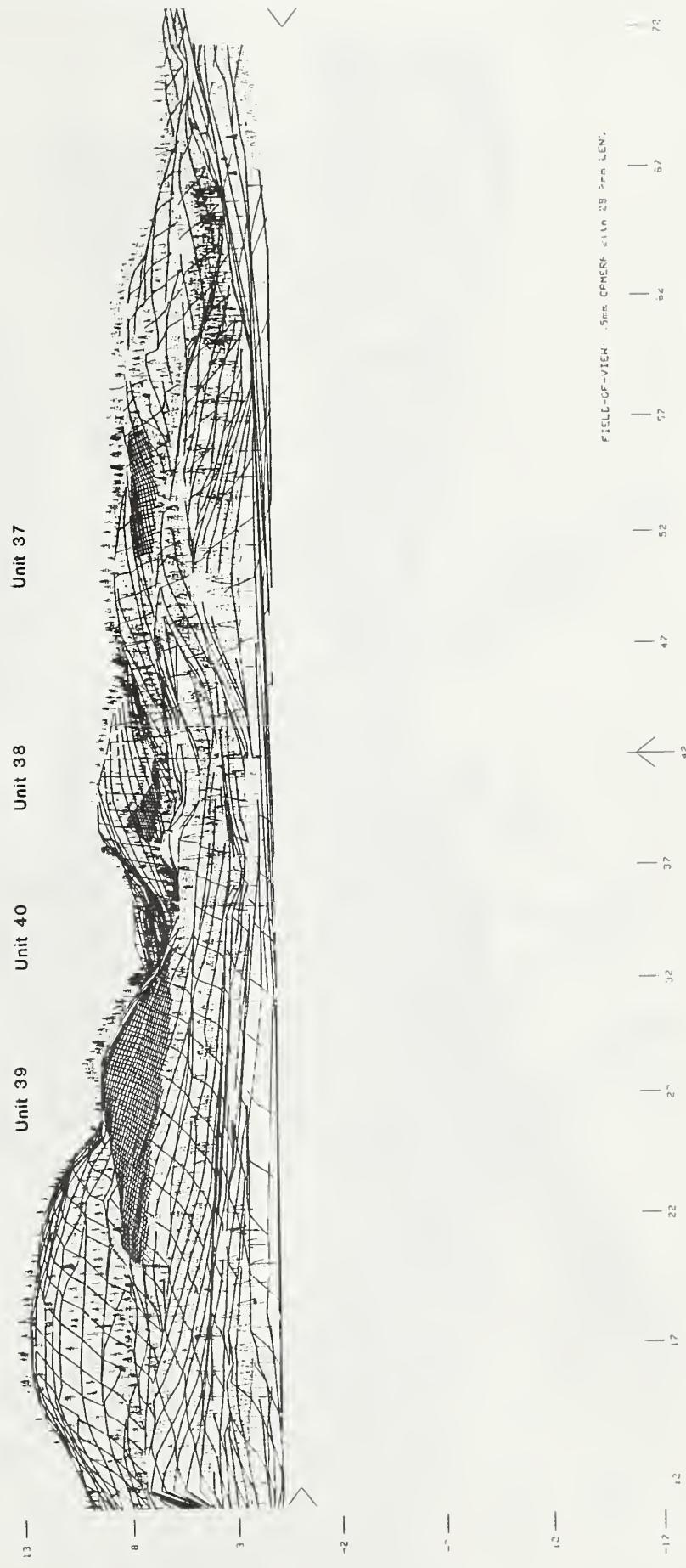
FIELD-OF-VIEW: 35mm CAMERA with 25.7mm LENS

-18 —	204	289	214	219	224	229	234	239	244	249	254	259
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ALT. 6

Fig. 4-15



VIEW DISTANCE = 17.2 INCHES

ALT. 6

Fig. 4-16

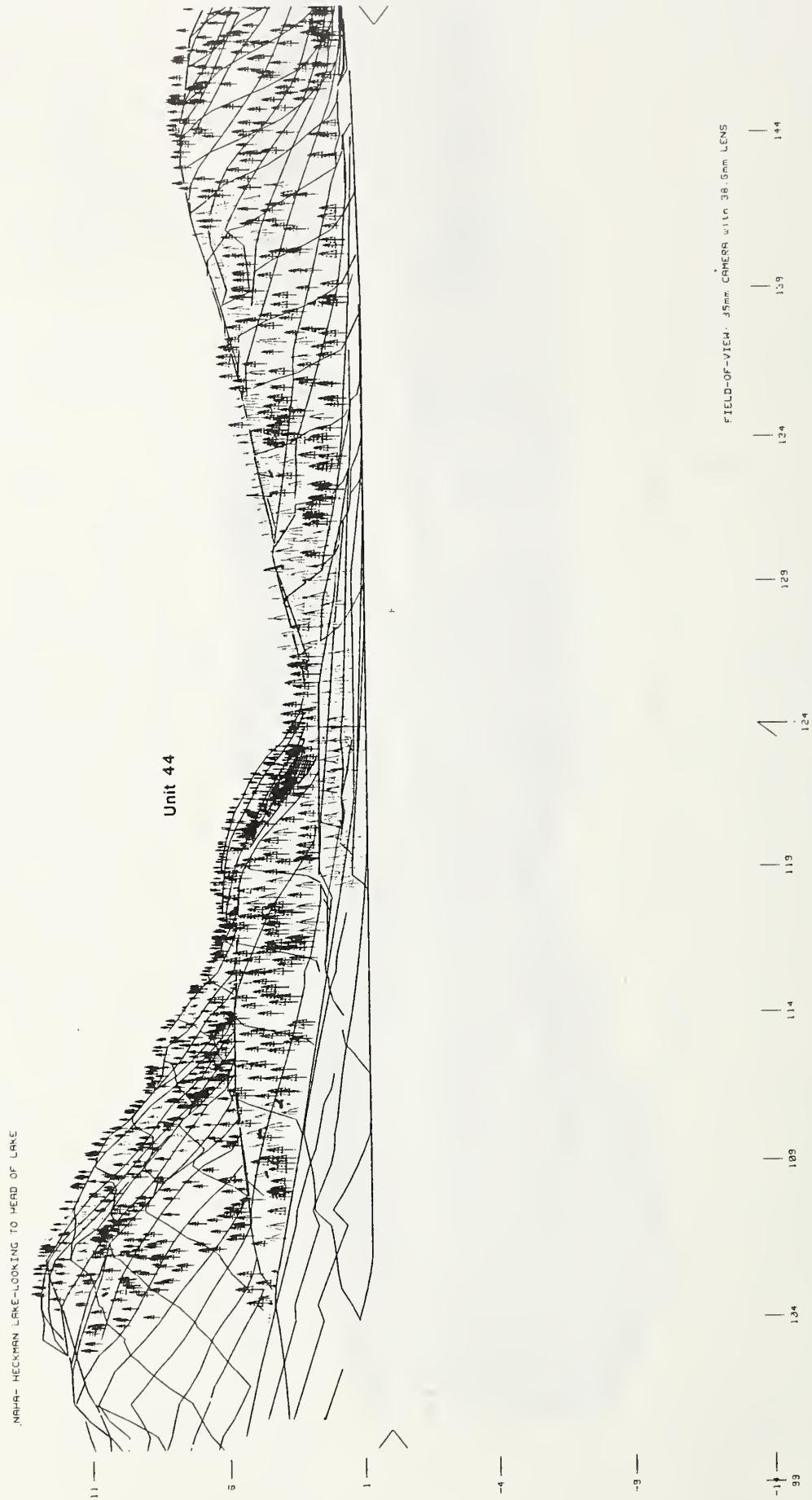
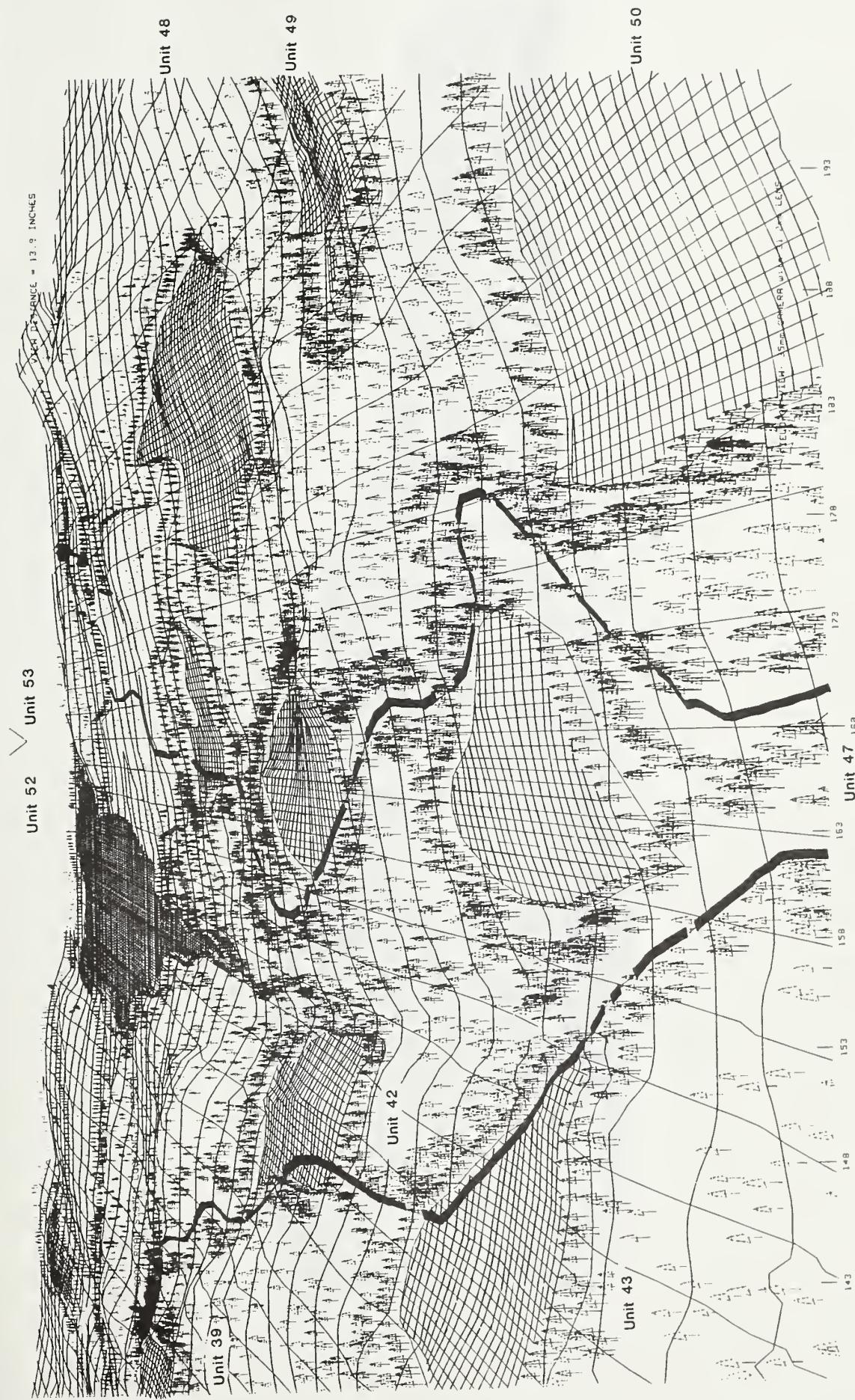


Fig. 4-17



27 —

NORTH SADDLE LAKES - LARGE LAKE LOOKING SOUTH

22 —

17 —

Unit 20

12 —

Unit 21

7 —

2 —

-3 —

-8 —

-13 —

-18 —

1.25

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1.22

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8.88

VITEN DISTANCE = 12.8 INCHES

ALT. 6

Fig. 4-19

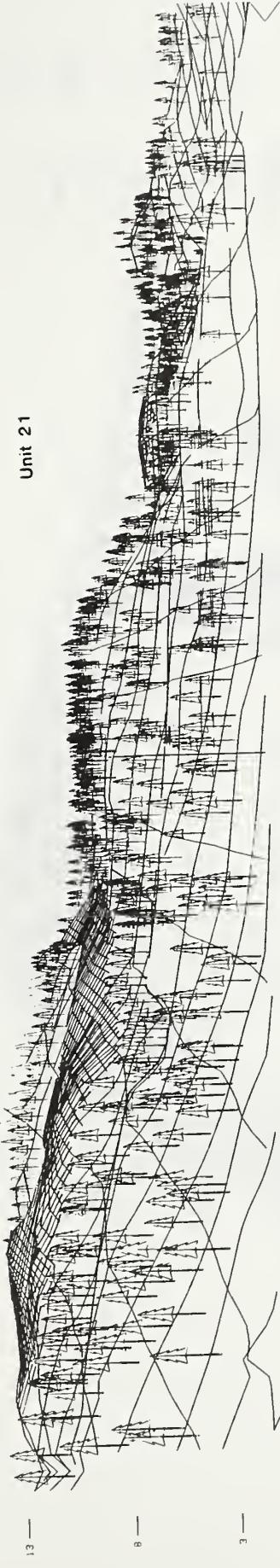
N. SADDLE LAKES - N. END LARGE LAKE LOOKING S.

23 —

18 —

Unit 20

Unit 21



-2 —

-7 —

-12 —

FIELD-OF-VIEW - 35mm CAMERA with 28-mm. LENS

13 —  
8 —  
3 —  
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1.4.2  
1.4.5  
1.5.2  
1.5.5  
1.6.3  
1.6.5  
1.7.5  
1.8.2  
1.8.5  
1.9.2  
1.9.4  
1.9.5  
1.9.9  
2.0.2

# PROPOSED OLD GROWTH AREAS

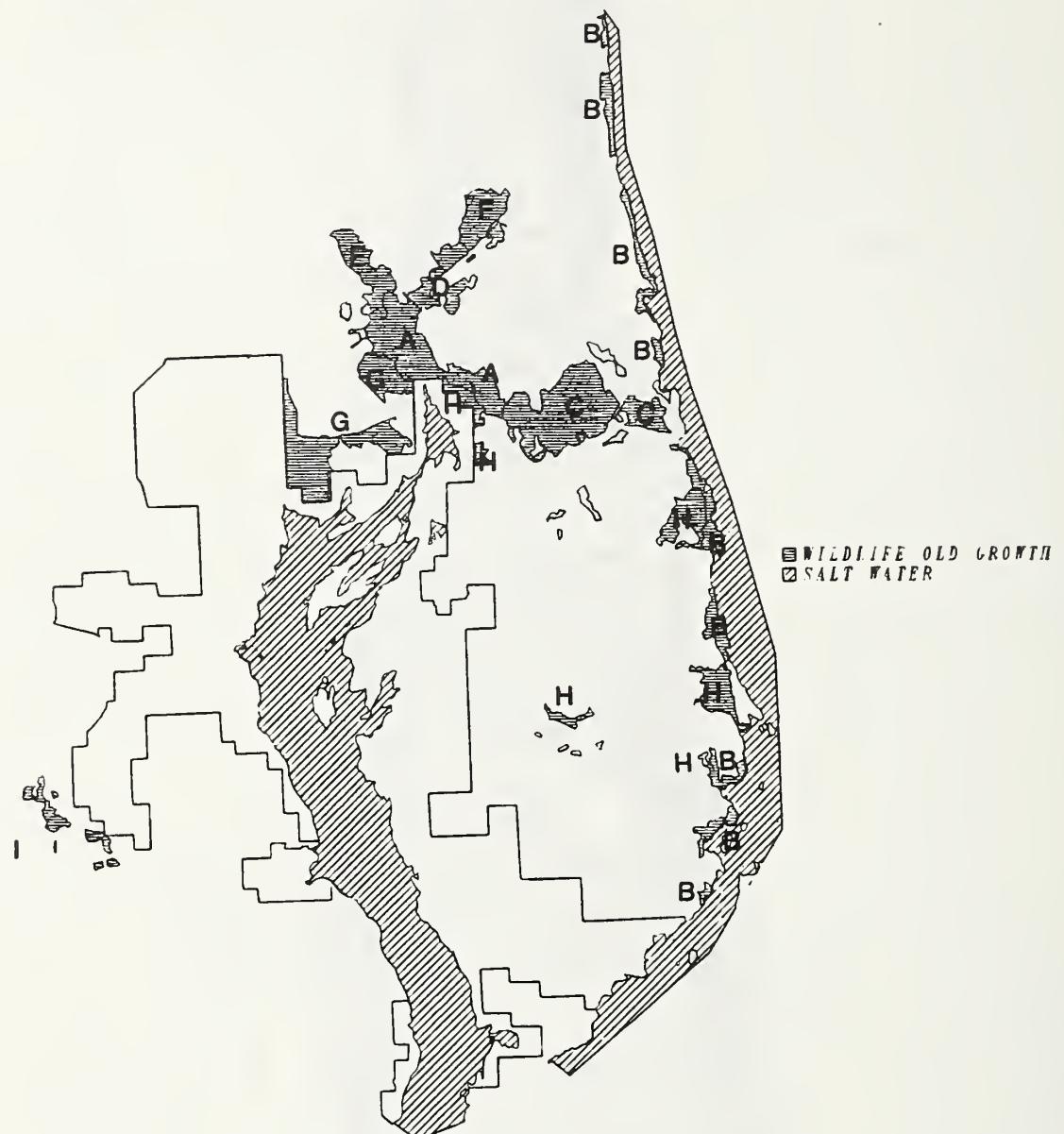


Fig. 4-20

# ALTERNATIVE 2

## WILDLIFE OLD GROWTH



Fig. 4-21

*ALTERNATIVE 3*  
*WILDLIFE OLD GROWTH*

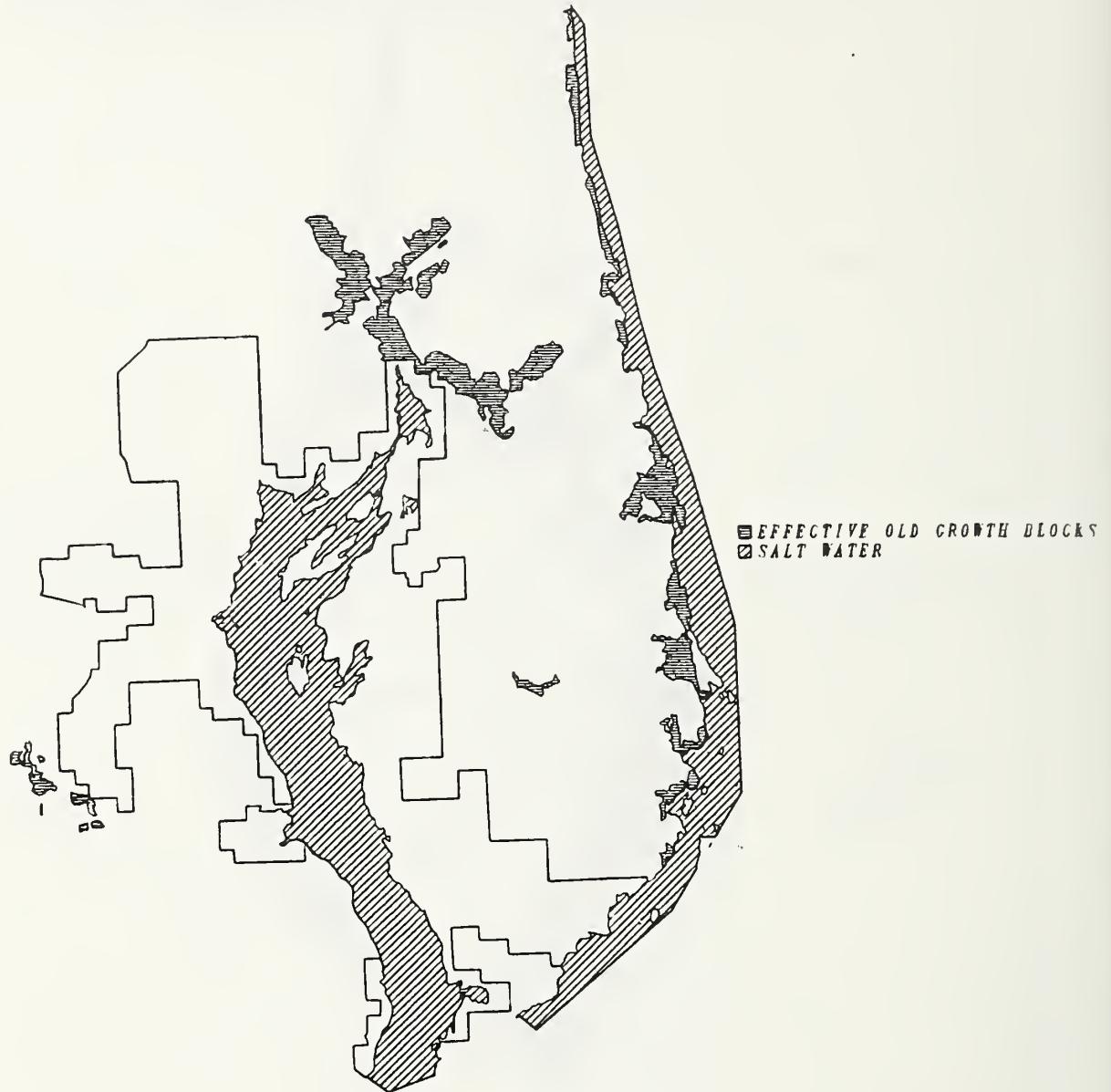


Fig. 4-22

# ALTERNATIVE 4

## WILDLIFE OLD GROWTH



Fig. 4-23

*ALTERNATIVE 5*  
*WILDLIFE OLD GROWTH*

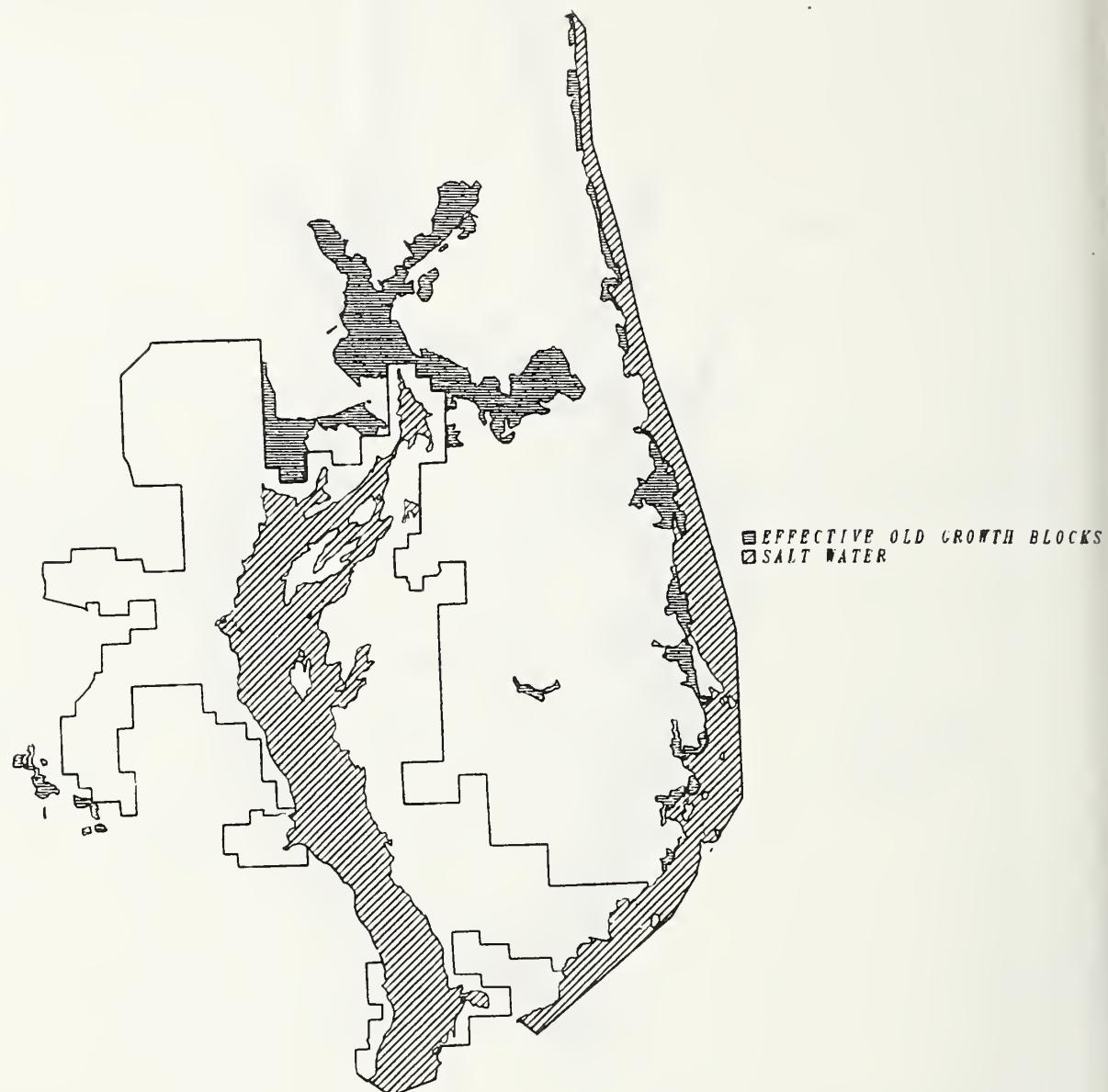


Fig. 4-24

# ALTERNATIVE 6

## WILDLIFE OLD GROWTH



Fig. 4-25



# Alternative Maps



# ALTERNATIVE 2

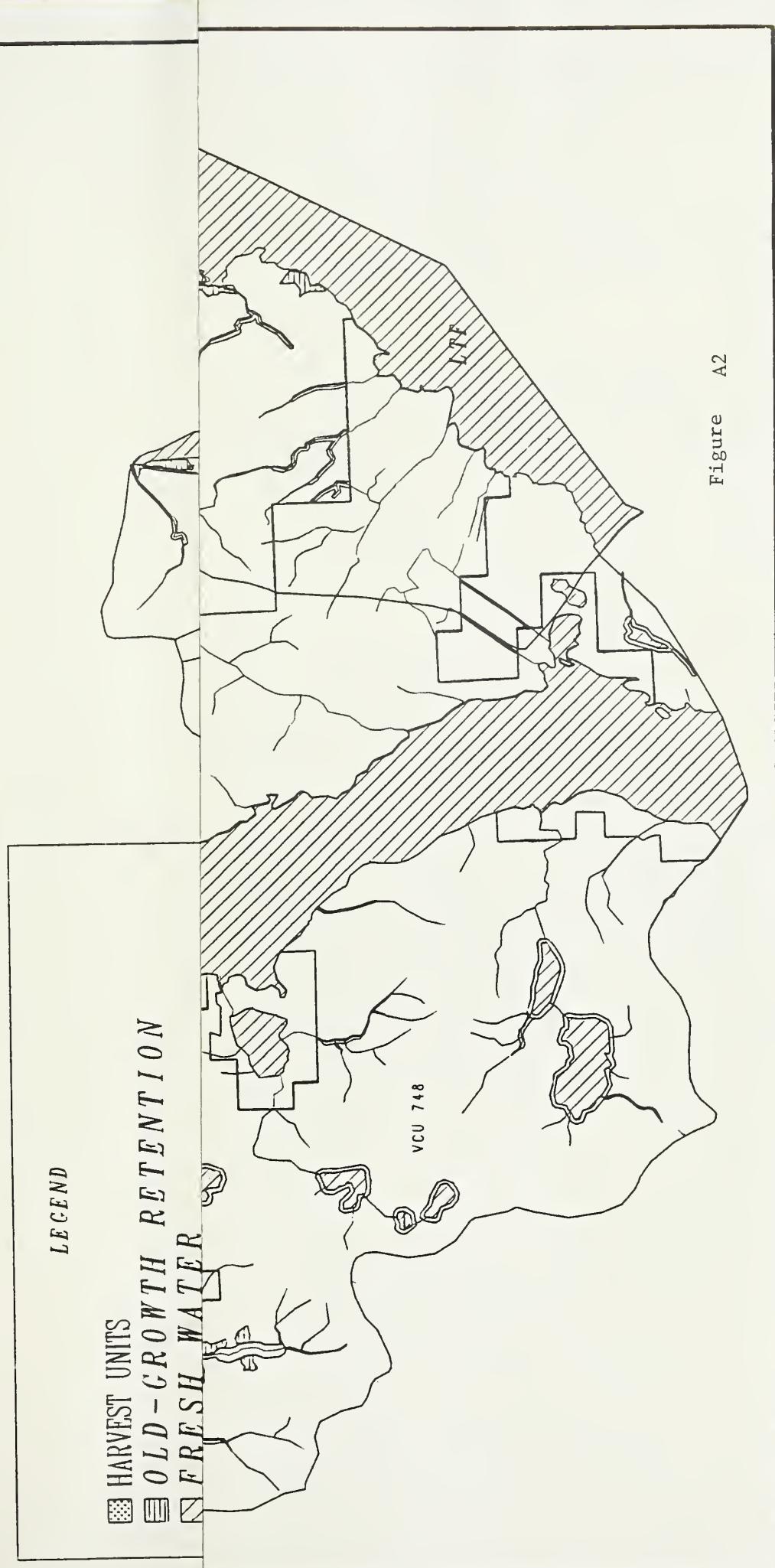


Figure A2



# ALTERNATIVE 3

## LEGEND

■ HARVEST UNITS  
■ OLD-GROWTH RETENTION  
▨ FRESH WATER  
SALT WATER

- PROPOSED ROADS  
- PRIVATE BND  
- VCU BND  
□ STREAM BUFFER

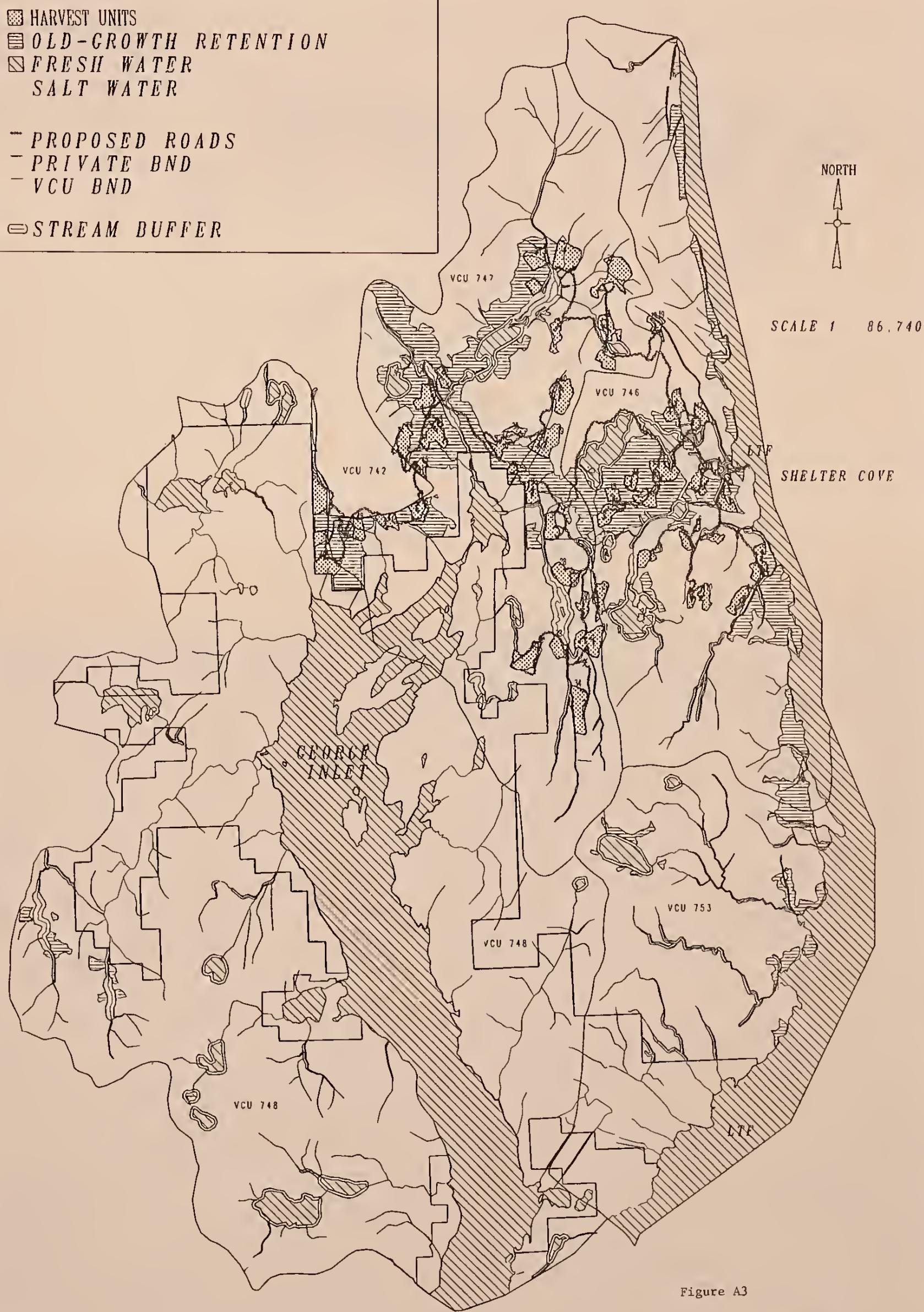


Figure A3



# ALTERNATIVE 3

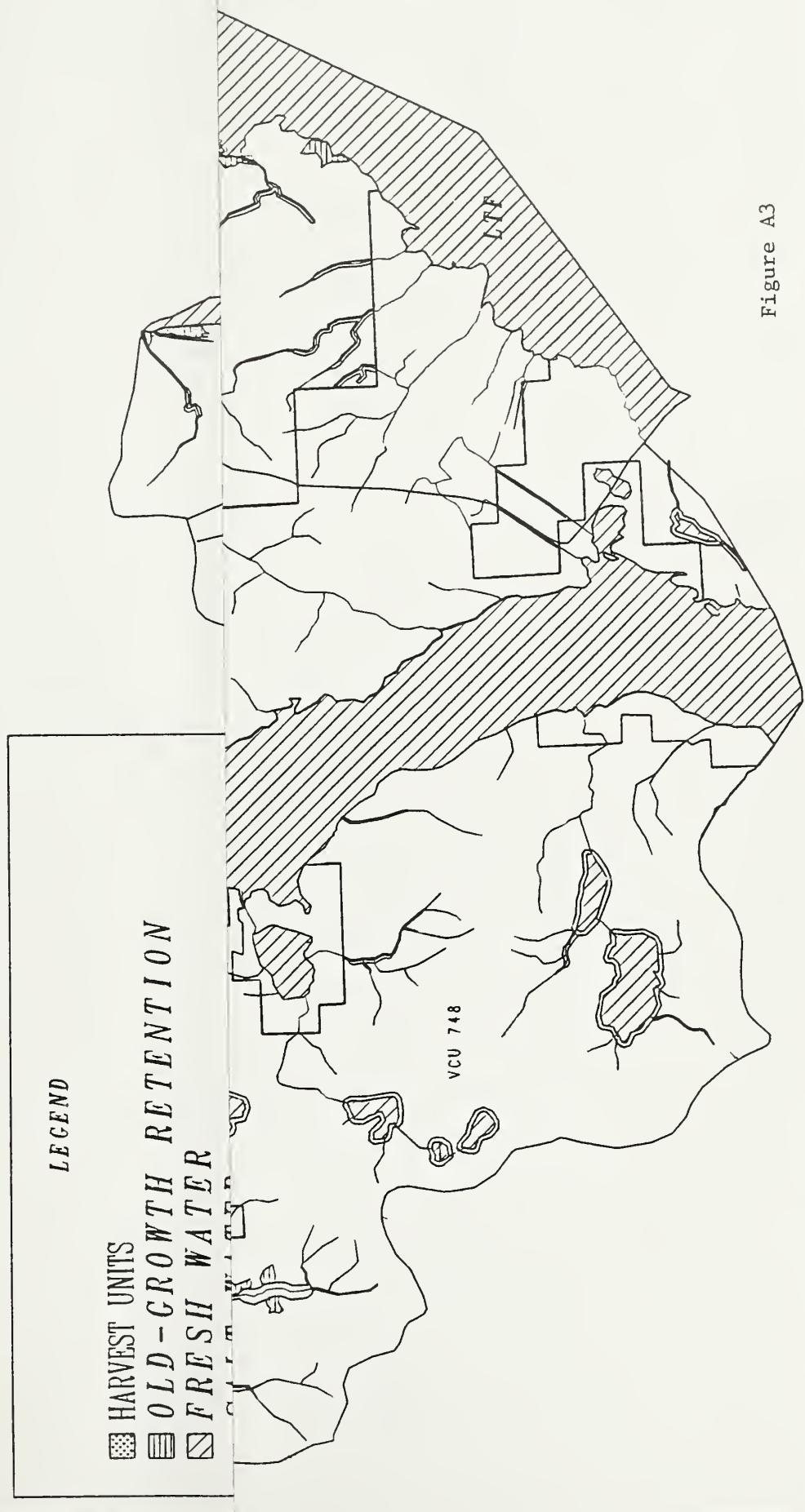


Figure A3



# ALTERNATIVE 4

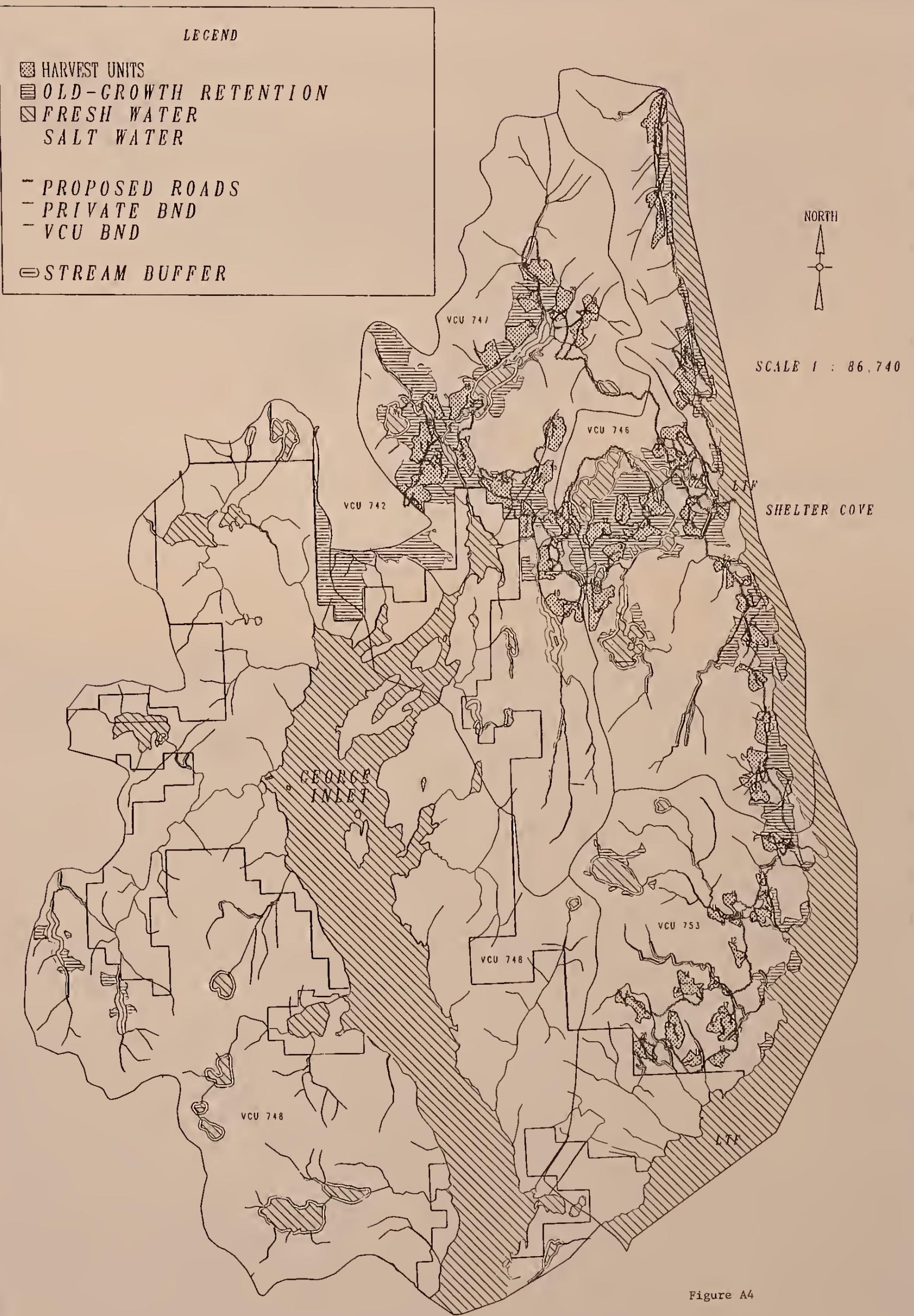


Figure A4



# ALTERNATIVE 4

## LEGEND

- HARVEST UNITS
- OLD - GROWTH RETENTION
- FRESH WATER

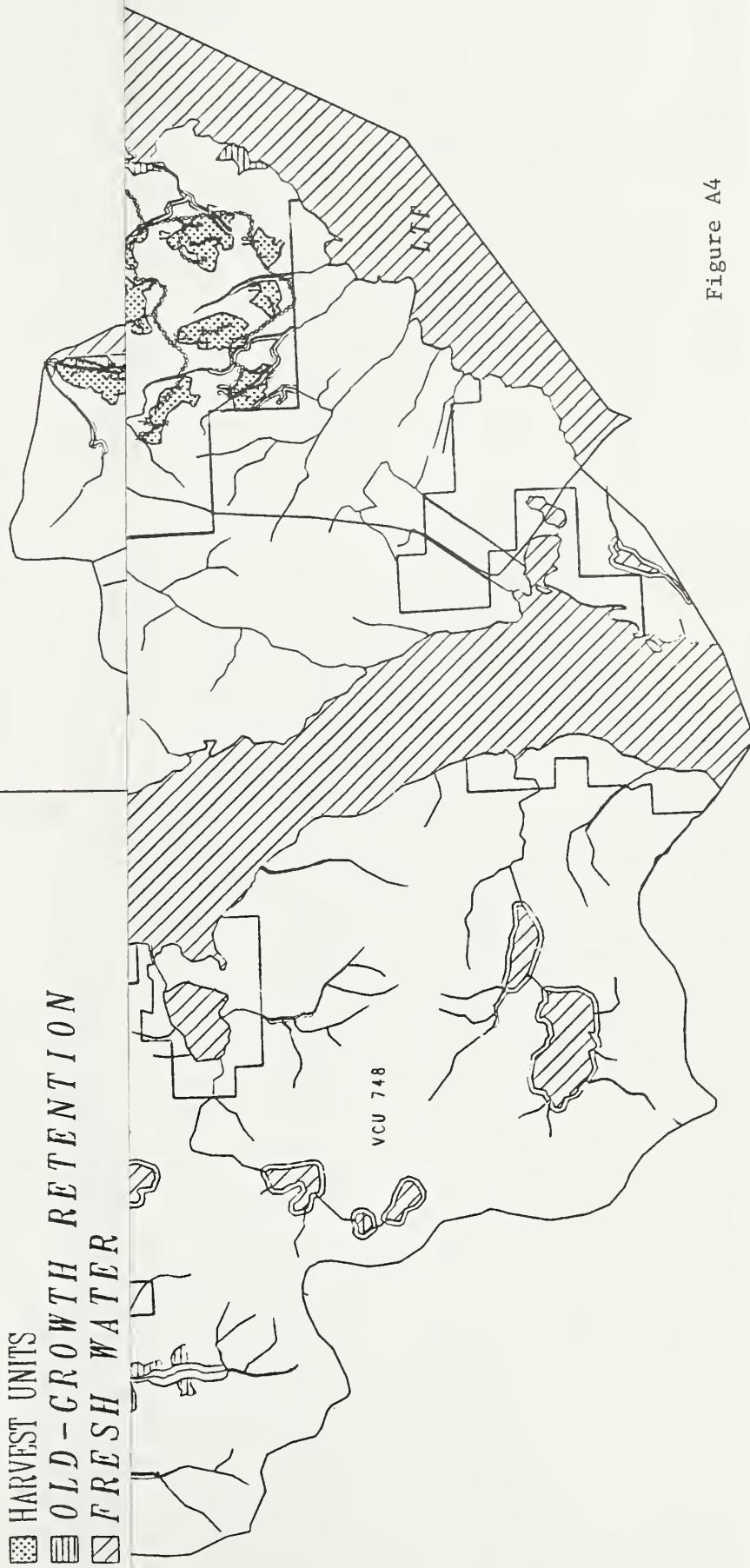
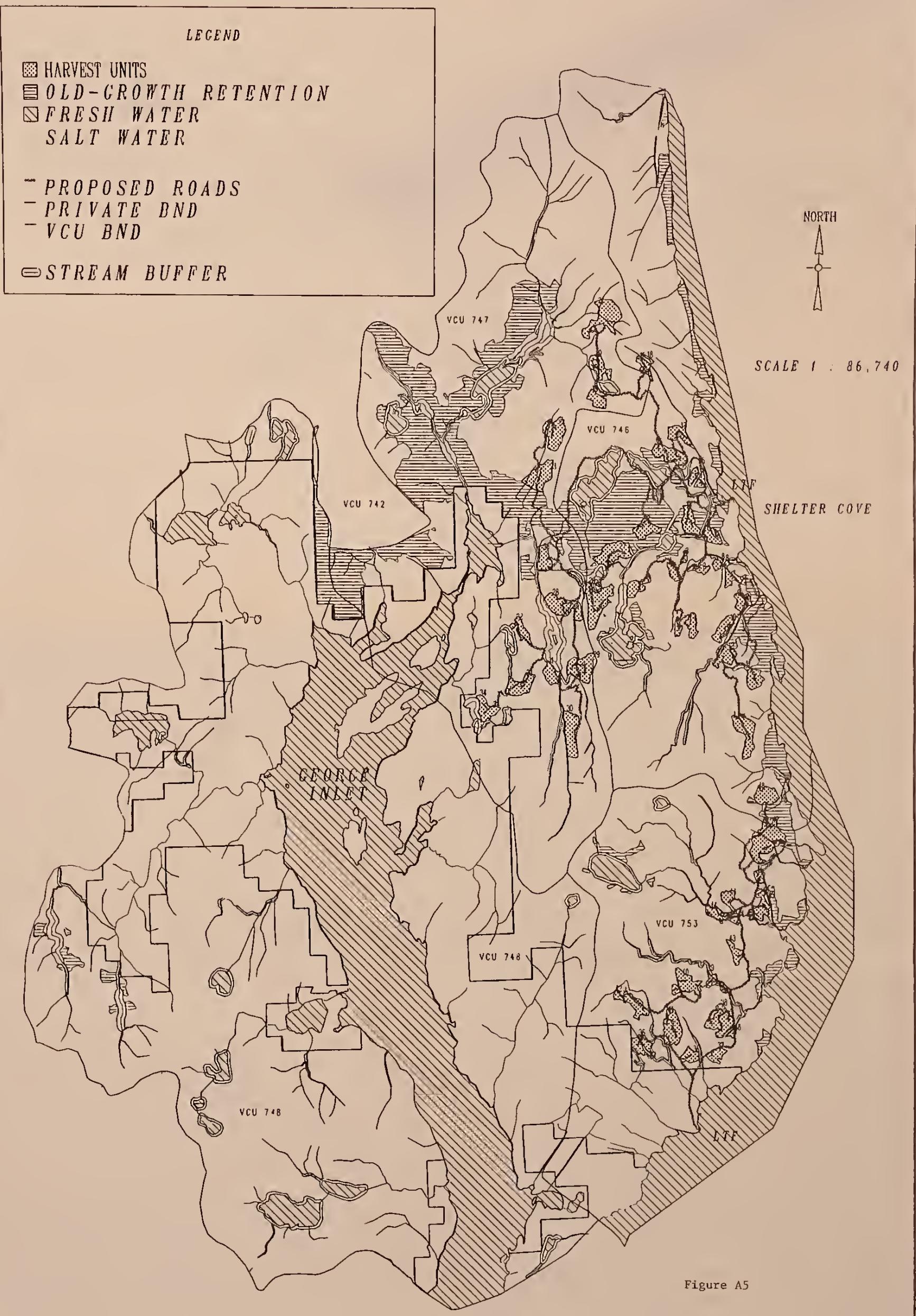


Figure A4



# ALTERNATIVE 5





# ALTERNATIVE 5

## LEGEND

- HARVEST UNITS
- OLD - GROWTH RETENTION
- FRESH WATER

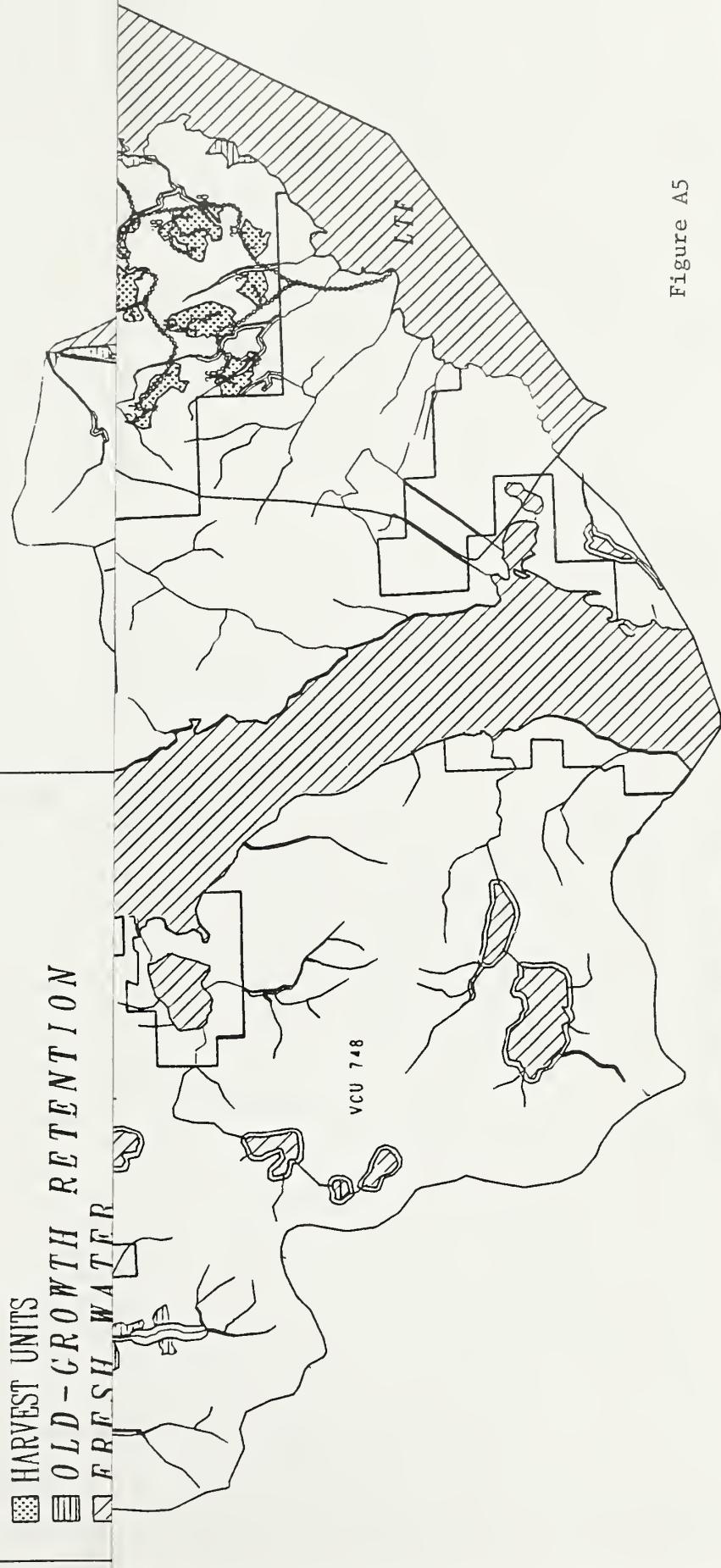


Figure A5



# ALTERNATIVE 6

## LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER
- SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- STREAM BUFFER

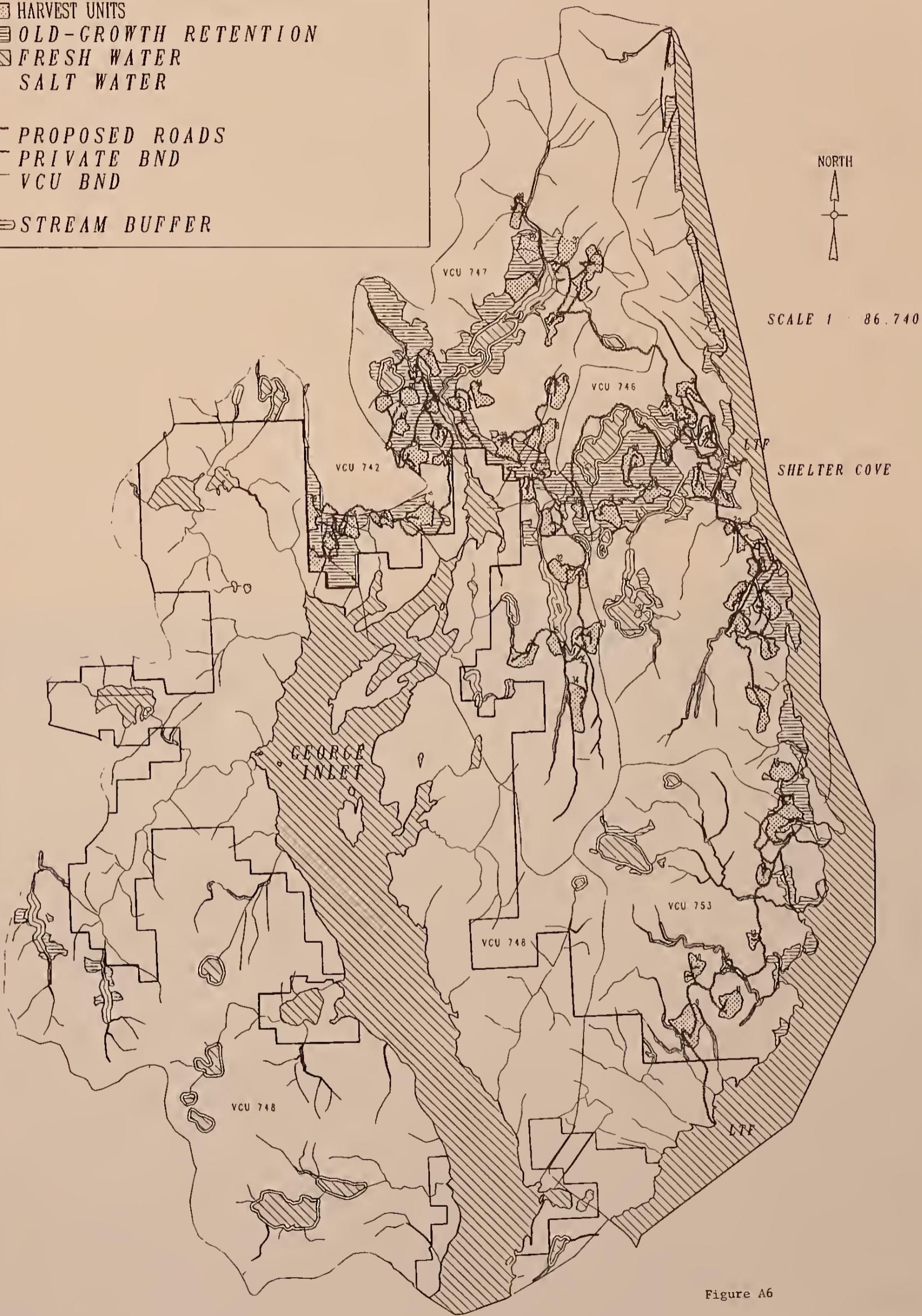


Figure A6



# ALTERNATIVE 6

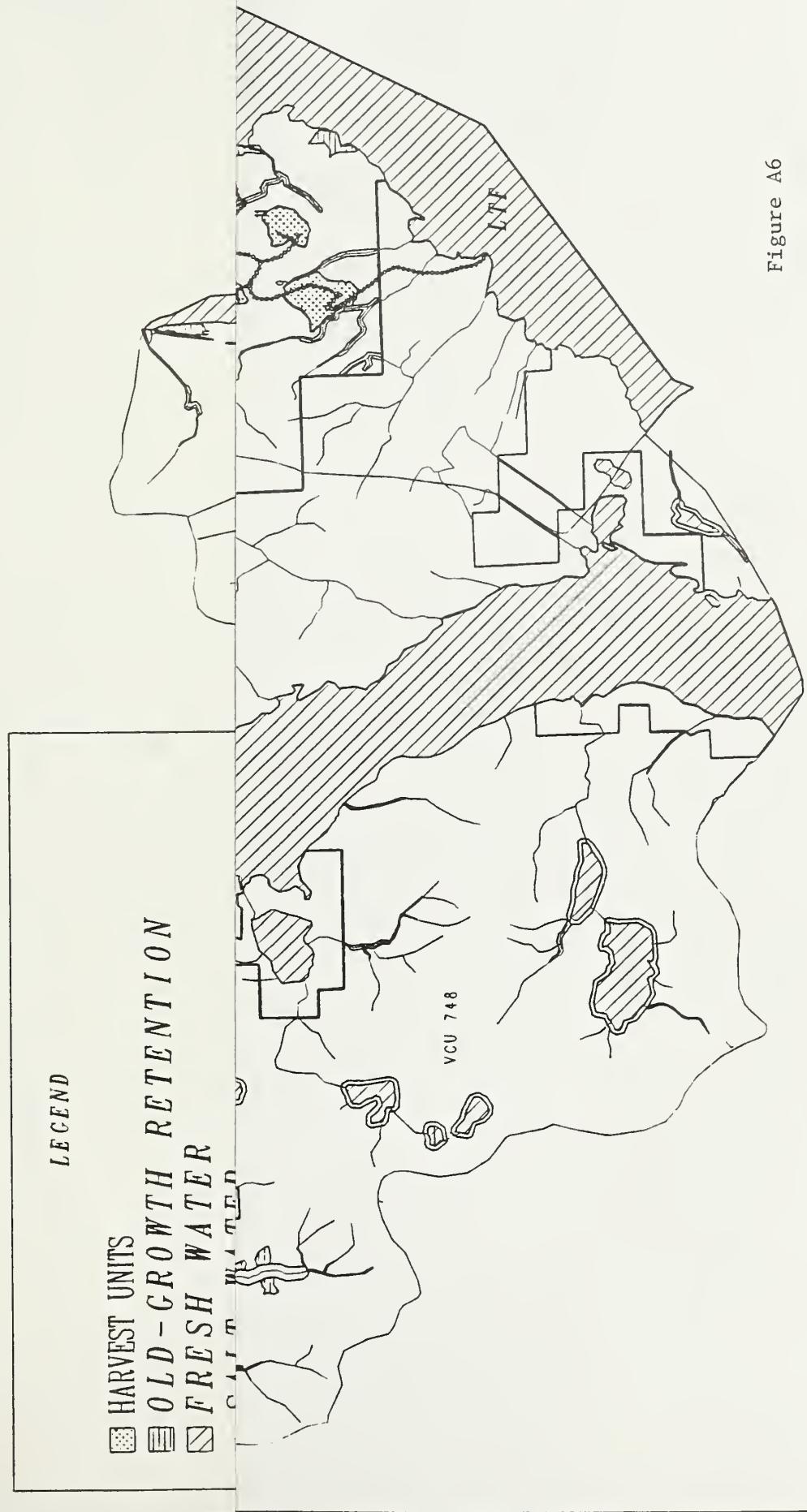


Figure A6





